

DAILY METAL REPORTER

MONTHLY SUPPLEMENT

METALS

Published Since 1929

In This Issue

THE WORLD TIN PICTURE IN 1960

By R. D. COURSEN, Director
The Malayan Tin Bureau

COPPER OUTLOOK FOR CONSUMERS

By EUGENE D. EMIGH
The American Hardware Corporation

ALUMINUM SHIPMENTS TO RISE

By Business and Defense Services Administration

DOMESTIC METAL MARKET REVIEW

WASHINGTON REPORT

METAL STATISTICS

**JANUARY
1960**

Kennecott Copper Corporation Kennecott Sales Corporation

Producers and Sellers of
Electrolytic Copper
Chino Fire Refined Copper (K.C.M.)
Braden Fire Refined Copper (★★★)
Molybdenite

Offices

161 East 42nd St., New York 17, N. Y.

PHELPS DODGE CORPORATION

PHELPS DODGE REFINING CORPORATION

300 PARK AVENUE, NEW YORK 22, N. Y.

C O P P E R

P★D—ELECTROLYTIC—LNS
PDM FIRE REFINED

COPPER SULPHATE — NICKEL SULPHATE
SELENIUM — TELLURIUM — PRECIOUS METALS

Buyers of

BULLION, ORES, CONCENTRATES, MATTE and BLISTER

Subscription
\$5.00 a Year
50c a Copy

DAILY METAL REPORTER MONTHLY SUPPLEMENT METALS

Registered U. S. Patent Office
Published Monthly Since 1929

Charles H. Lipsett
Publisher
Dr. J. Zimmerman
Editor
M. Goldfischer
Associate Editor

Monthly Supplement of
Daily Metal Reporter
Issue of January 29, 1960

JANUARY, 1960

Vol. 30 — No. 7

TABLE OF CONTENTS

Washington Report	4
The World Tin Picture in 1960	7
<i>By R. D. COURSEN, Director</i> <i>The Malayan Tin Bureau</i>	
Copper Outlook for Fabricators	8
<i>By EUGENE D. EMIGH,</i> <i>The American Hardware Corporation</i>	
Aluminum Shipments to Increase	9
<i>By Business and Defense Services Administration</i>	
British Metal Markets	11
<i>By L. H. TARRING, London, Eng.</i>	
Domestic Metal Market Review	13
Metal Brands	17
U. S. Metal Import Duties	18
Metal Statistics	19

Two LINE Editorials

The Democrats' insistence that they would like to see Mr. Nixon nominated by the Republicans because he would be the easiest to beat is somehow reminiscent of Bre'r Rabbit's pleas not to be thrown into the briar-patch.

* * *

Mr. Adlai Stevenson says that the Democratic party has "some exceptionally well qualified" men who would make good Presidential candidates. And it is only Adlai's innate modesty that prevents his mentioning the most exceptionally well qualified of the lot.

* * *

Carnegie Institute scientists report hearing "hissing sounds" transmitted from the planet Jupiter. Obviously the inhabitants of Jupiter have been tuning in on some of our television programs.

* * *

Mr. K., of course, is perfectly willing to agree to disarm; but he's not willing to have any nosey inspectors snooping around to see whether he's actually disarming.

* * *

As we understand it, Castro is perfectly willing to have a popular election in Cuba just as soon as he can be sure that the proper people will be elected.

* * *

Using coal as a road building material, as is now suggested, may be all right, but isn't there danger that such a road might be set on fire by some of these hot rods?

METALS — 425 West 25th Street, New York 1, N. Y.

Published by the National Business Press, Inc.

Phone: WAtkins 4-0660

Cable Address: ATPUBCO, New York

Branches: Washington, Philadelphia, Chicago, Boston

London Office: 81 Highview Ave., Edgware, Middlesex, England

Cable Address: ATPUBCO, London

Affiliated Publications: Daily Metal Reporter, Daily Mill Stock Reporter,
Waste Trade Journal, Waste Trade Directory, Standard Metal Directory,
Mines Register, World's Waste Trade Directory, Sales (Weekly).

Washington Report



January 21, 1960

The tumult and the shouting over lead and zinc tariffs has died down for the time being after hectic days of hearings before the Tariff Commission. The next step is the preparation by the commission of its report to Congress, required by March 31, 1960.

This year's tariff tussle bore a great resemblance to the previous encounters between proponents and opponents of higher duties. As has been the case, many domestic producers pleaded for increased protection while smelters who require ore from abroad and Canadian and Mexican mining interests urged elimination of import restrictions. Manufacturers of lead and zinc products generally urged treatment compensatory to that of the raw material. Of those urging greater curbs, most registered opposition to the quotas as a device but they were reluctant to drop it until duties were boosted.

See No Injury on Sheets

During the hearings, the Tariff Commission made public its 3 to 2 vote of no injury to the domestic zinc sheet industry, as a result of its "Escape Clause" investigation.

The commission majority found that imports of zinc sheet were not causing or threatening serious injury to the domestic industry concerned. The commission therefore made no recommendation to the President for the modification or withdrawal of the trade agreement concession applicable to this product.

Chairman Talbot and vice chairman Overton filed a vigorous minority dissent in which they reported imports of zinc sheet were entering this country in such volume as to seriously injure the domestic industry. They concluded that an increase in duty to 56 per cent of the ad valorem would be necessary to correct the situation.

Congressional Opinion

At the onset of the hearings, a parade of Congressional officials told the commission that the current im-

port quota system has failed to cure the ills of the domestic lead and zinc mining industry. They urged the commission to recommend increased protection for U.S. producers of these metals.

Sen. Murray, (Dem., Mont.) chairman of the Senate Interior Committee, which handles mineral legislation, said in a statement prepared for a Tariff Commission hearing that "there can be no question but that the industry is sick."

Import quotas imposed on foreign lead and zinc in 1958, Sen. Murray said, failed to provide an economic climate in which domestic mines can operate.

"Living proof of the economic plight of the industry is found in what has happened at the Anselmo zinc mine in Butte, Mont.," Sen. Murray said.

"As a young man I saw this mine develop from a prospect hole to the largest zinc mine in the United States, employing more than 1,100 miners. Recently, since the import quota restrictions were imposed, it has closed down, throwing 800 men out of employment. It will never reopen until the price of zinc is substantially higher and stability has come to the industry."

Sen. Murray urged the commission to conduct a thorough investigation and tell Congress "what additional import quota restrictions, if any, are needed to assure that lead and zinc mining operations in the U.S. may be conducted on a sound and stable basis."

Senator Dworshak (Rep., Idaho) told the commission that the quotas on lead "have not been drastic enough for the purpose intended and they have brought about an enormous complexity in international trade that has created a great amount of unrest among domestic

smelting and refining industries and among the producers of lead and zinc in foreign countries shipping to the United States."

The lead and zinc miners, he noted, "have long advocated the simplest and soundest measure of relief, namely a reasonably higher tariff. I am convinced this is the proper cure today."

The Idaho Republican added, however, "it is imperative that the quotas on lead and zinc imports remain in force until some permanent solution to the miners' problem is developed. Indeed, the quotas on lead should be tightened to prevent further deterioration of the domestic lead market."

Senator Bennett (Rep., Utah) asserted that imports of lead and zinc were entering in such quantities "as to injure or threaten serious injury to the domestic industry."

Industry Viewpoints

Highlights of testimony by industry representatives include:

R. A. Young, vice president, the American Zinc, Lead and Smelting Co., told the commission that the best interests of the zinc mining and smelting industry would be served by the imposition "of a reasonable increase in the specific duty rate."

Robert P. Koenig, president, Cerro de Pasco Corporation assailed the import quota as "exactly the kind of destructive response which the U.S. should not take in its attack upon its balance of payments deficit problem."

Simon D. Strauss, vice president, American Smelting and Refining Company, said "continuation of the quota system is a very serious threat to the long-term future of the lead and zinc industry."

John Lennon, vice president of the Amco Division of American Metal Climax, said the imposition of additional restrictions on the importation of lead and zinc would not put domestic production of these minerals on a "sound and stable basis" but would tend to place their future production in jeopardy.

Frederic R. Jeffrey, president, National Zinc Company, recommended that the duty on slab zinc be raised to 2.50c a pound and that on zinc ores and concentrates to 1.75c.

David Laine, Secretary, American Die Casting Institute, urged the immediate removal of quotas on slab zinc imports and the temporary suspension of duties. He also asked the release of Government stocks of premium grades of zinc now held in the

(Continued on Page 15)

CALUMET & HECLA, INC.



Sales Representatives

122 South Michigan, Chicago 3, Ill.

producers of:

Antimonial Lead	Lead, Test
Antimony	Litharge, C. P.
Antimony Oxide	Molybdenum Concentrates
Arsenic	Nickel Salts
Asbestos	Selenium
Bismuth	Silver
Cadmium	Sulfur Dioxide, Liquid
Cadmium Oxide	Sulfuric Acid
Cadmium Sulfide	Tellurium
Copper	Thallium
Fluorspar	Thallium Sulfate
Germanium Concentrates	Zinc
Gold	Zinc Dust
Indium	Zinc Sulfate
Lead	

ASARCO

AMERICAN SMELTING AND REFINING COMPANY
120 BROADWAY, NEW YORK

Electrolytic Lead Zinc Cadmium

**UNITED STATES SMELTING
REFINING and MINING
COMPANY, INC.**

SALES OFFICE

63 William St.

New York, N. Y.

ADOLPH LEWISOHN SELLING CORPORATION

61 Broadway, New York

Successor to

Adolph Lewisohn & Sons, Inc.

COPPER

MOLYBDENITE
AND MOLYBDIC OXIDE

Sales Agent for

**MIAMI COPPER CO.
TENNESSEE COPPER CO.**

Metal Traders, Inc.

26 Broadway, New York

Telephone:

BOWling Green 9-6820



BUYERS and SELLERS of
ALL METALS and ALLOYS
METALLIC ORES
SCRAP METALS
RESIDUES

SUPERIOR

"All The Name Implies"



HIGH GRADE
ZINC DUST

INTERMEDIATE GRADE
SLAB ZINC



SUPERIOR ZINC CORP.

City Center Building — 121 N. Broad Street
PHILADELPHIA 7, PA. — Works: Bristol, Pa.

selling

COPPER • LEAD • ZINC • TIN

silver—bismuth—cadmium
OFHC® Copper—OFHC® Copper Anodes
solder—metal powders—zinc-base alloys
selenium—tellurium—germanium

MOLYBDENUM

ferromolybdenum—technical molybdic oxide
technical thermite metallic molybdenum
moly sulfide — molybdenum pentachloride
pure molybdic oxide—calcium molybdate

buying

ORES • SCRAP • RESIDUES

for custom smelting and refining

gold—silver—copper
zinc and lead ores, sweeps,
mattes, and bullion
copper and brass scrap
copper-bearing material
zinc drosses and skimmings
lead scrap and residues
lead-covered cable
tin-bearing material
automobile radiators

AMERICAN METAL CLIMAX, INC.
61 Broadway, New York 6, New York



The World Tin Picture in 1960

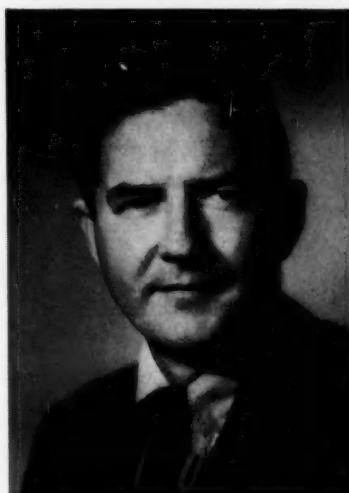
By R. D. COURSEN, Director, The Malayan Tin Bureau

NINETEEN hundred and sixty should bring about a marked improvement in the international tin picture, in comparison with the situation that has existed for the last two-odd years. To determine why producers, particularly those in Malaya, feel optimistic, it is necessary to review a certain amount of statistical material. It will be recalled that on December 15, 1957, the free-World tin producing nations, through their membership in the International Tin Council, agreed to limit their exports in order to more effectively balance world production and consumption. In the last full year prior to the imposition of these controls under the International Tin Agreement, production in the six member countries — Malaya, Bolivia, Indonesia, Belgian Congo and Ruanda-Urundi, Thailand, and Nigeria — was 154,938 long tons. Mathematically, this equals an average of 38,735 long tons per quarter.

Keeping this figure in mind, let us see what has happened to the allowable exports of these countries under the controls. In the period from December 15, 1957 through March 31, 1958 the quota was set at 27,000 long tons. The second control period (2nd Quarter, 1958) was 23,000. Quotas for the closing two quarters were 23,000 and 20,000 long tons. In 1959 the quarterly quotas were 20,000, 23,000, 25,000, and 30,000 long tons. The first quarter, 1960 quotas have been set at 36,000 long tons. It is evident that the severe sacrifices made by the tin producers had resulted in a more stable market, allowing for gradual increases as consumption and demand increased.

Effect of Quotas

The effect of these controls on the world's largest tin producer — Malaya — were even more serious than on the aggregate six nations. Suffice it to say that the severity of the controls on Malaya was exceptionally heavy because the base period used for the quota controls presented sta-



RALPH D. COURSEN

tistics which tended to place unusual burdens on those countries whose production rise had been uninterrupted since 1946.

Wholly apart from the gradual lessening of the severity of controls under the International Tin Agreement, the Malayan tin producers have other reason for what they like to describe as "cautious optimism." In the first place, many mines were forced since December, 1957 to shut down completely or to operate on a very limited basis. This has given time for the study of new techniques of treatment of concentrates in cleaning plants, as well as the increased recovery from mining processes by dredge, by monitor, and by dry mining techniques. As a result, many mines, particularly those in the Asian sector, will in 1960 be operating with more modern, more efficient, and incidentally more costly, equipment than has ever been true in the past.

Climate for Enterprise

Secondly, the climate for private enterprise in Malaya is extremely favorable. The freeing-up of dollar exchange, the encouragement of private

capital through the passage of legislation favoring pioneer industries, and extending special considerations tax-wise to them — these are a few of the reasons why Malaya is experiencing a comparatively more prosperous time than most, if not all, of the Southeast Asian countries. This fact has not been lost on Americans, as witness the opening of branches of two major U. S. banks, and the building by U. S. connected firms involved in oil refining, soap manufacture, copra, fertilizers, etc.

Thirdly, the political climate in Malaya is extremely sympathetic to private enterprise because it consists of a fine balance between the various ethnic and racial groups. The conservative-minded amalgamation of Malays, Chinese, and Indians known as the Alliance Party won a resounding victory and a minimum five-year term of office in the national elections concluded in September, 1959. It has been both the policy and the practice of the Alliance to encourage the development not only of its two principal resources — tin and rubber — but also secondary industry. It has also successfully invited such enterprises as the Bank of America and the National City Bank of New York to establish operations in the Federation.

The Federation Government, recognizing the seriousness of the problems facing its neighbors in Southeast Asia particularly, and Asia generally, have approached the problems of race, economics, and social welfare from a conservative viewpoint. They have not attempted to solve the problems of their country overnight but have instead, to borrow an expression of one of their leaders, "learned to walk before they will run."

Long-Term View

Fourthly, a combination of the three principal climactic elements mentioned before has led the Malayan tin mining industry to take a long-term view of the world tin situation.

(Continued on Page 15)

Copper to Be Ample by Mid-1960

By EUGENE D. EMIGH, The American Hardware Corporation

TWO facts stand out in a review of 1959 experience of brass mills and ingot makers: (1) brass mills and ingot makers had enough copper to maintain production throughout the 5-month strike of major U. S. mines. (2) the price rise was not as sharp in 1959 as it had been in 1955 under similar circumstances. The supply and demand factors, in the free-world copper markets, explain the 1959 strength of copper and indicate the pattern for 1960 with respect to deliveries, inventories and prices.

The U. S. mine strikes in 1959 shut down 80 per cent of U. S. mining and smelting facilities for most of a five-month period. In other words, we lost 1/3 of the 1959 production of the copper mining and smelting industry in the United States. This loss was made up by imports of 400,000 tons from foreign producers without reducing their inventories and without interfering with the supply of copper to foreign fabricators. Foreign producers were able to pick up this added burden because of the increased foreign mine and smelter capacity in the past two years. This factor becomes increasingly important in 1960 because new copper facilities will be opened in Australia, Chile, Rhodesia, Russia and China.

Ample Supply Seen

Free-world production and consumption of copper in 1959 equalled the average of the past 5 years. Even though a higher 1960 demand for copper is expected for both foreign and domestic consumption, it is reasonable to expect that expanded free-world production facilities will take care of this increased demand, will build strong inventories by mid-1960, will necessitate resumption of measures to stabilize copper markets. These developments are contingent upon continued production in all principal domestic and foreign mines. The stabilization movement will be successful to the extent that producers can be relied upon to cooperate with each other.

We have been interested in mak-

ing a comparison of the 1955-56 price pattern with the more recent 1958-59 price pattern. It will be recalled that in 1955 domestic and foreign mining capacity was barely adequate to meet the demand for copper. The marginal U. S. mines were kept open at high cost to pick up part of the needed copper supply. Custom smelters were not shut down by the 1955 strikes and their increased demand for scrap forced prices higher on secondary copper. Under 1955 conditions the London copper price followed the U. S. custom smelter price to a peak 54c and higher.

By 1959 foreign mine capacity had been substantially increased. Major U. S. custom smelters were shut down by the five-month strike and copper scrap was plentiful at reasonably low prices. Custom smelters remaining in production at 1959 sold their limited output at prices ranging above 35c. During the five-month strike U. S. producers prices were pegged at 33c and London copper prices held generally on the low side of 33c to absorb transportation cost and the U. S. import duty of 1.7c. With free-world supply continuing strong and U. S. mines and smelters resuming operations the copper supply should be back to normal by the second quarter of 1960. U. S. producers are concerned about the pressure of foreign production and about the loss of markets to other types of metal. For these reasons they will attempt to maintain the 33c price level throughout the first quarter and work back to a 30c copper price during the second quarter.

Brass mills anticipated the long copper strike by building heavy inventories of copper during the early months of 1959. These inventories lasted through the year-end but some mills are running short of copper and high-copper scrap. This condition reached a point in early January where brass mill production was curtailed on certain products made of copper and high-copper alloys. Such production difficulties are expected

to become more general in January and February but will be corrected as the copper deliveries from U. S. mines and smelters resume a normal pattern.

Ingot makers had a strong year in 1959 showing a 20 per cent increase over 1958 production. Scrap was plentiful throughout the strike period but ingot makers found it difficult at times to buy at economical prices. Scrap dealers misjudged the market and held for higher prices which did not materialize. The low demand for copper scrap was caused by the shutdown of major custom smelters by the strikes and the reduced demand for scrap at the brass mills. Because steel scrap was not moving during the strike, scrap dealers unloaded their non-ferrous metals to get money for wages and operating expenses. The ingot market is expected to continue strong throughout the first quarter and possibly adjust to a lower price by the end of the second quarter.

Outlook for 1960

For 1960 it is reasonable to expect considerable copper shortages in the early part of the first quarter. Production that was expected from U. S. smelters will be delayed because of plant problems arising from the long strike. For example, electrolytic copper held in the tank houses for so many months has picked up impurities and is not up to specification. In re-opening the smelting plants, it was found that furnaces required relining, water lines had been frozen and equipment was out of condition. Thus the lag in deliveries is expected to drag out longer than anyone had expected. Because of these conditions there will be strong pressures to increase the U. S. copper price to about 35c for a short period. Viewing the year 1960 as a whole, unless strikes develop around the Chile contract negotiations in April or serious trouble develops in African mines, it is reasonable to expect plenty of copper in 1960 and prices falling back to 30c by mid-1960.

Prediction for This Year:

Aluminum Shipments to Increase

By Business and Defense Services Administration, Commerce Department

ALUMINUM shipments by producers to consuming industries are expected to be up 10 to 15 per cent in 1960 over 1959.

Increased usage in construction, automobiles, appliances and other consumer goods are expected to be major contributing factors in the increase.

Shipments to consumers are estimated to be about 37 per cent more in 1959 than in 1958 and primary production should increase 25 per cent, to an estimated 1,950,000 tons. The year 1959 exceeded the previous peak of 1956 by 19 per cent in shipments and 16 per cent in primary production.

Trends in 1959

The aluminum industry produces pig, ingot, and semifabricated forms—sheet, plate, foil, rod, bar, wire, cable, extruded shapes, tube, powder, forgings, and castings. These products are used by over 25,000 plants in making thousands of end-items.

The long-term average rate of growth of the aluminum industry has been about 10 per cent per year, compared with an average 3 per cent growth for the economy as a whole. In 1959, shipments to consumers increased at a rate just about 3 times the rate shown by the overall index of industrial production.

Total shipments to consumers in 1959 are estimated at about 4.9 billion pounds, up 37 per cent from the 3.6 billion pounds in 1958. Major consuming industries are construction, transportation, consumer durable goods, machinery and equipment, and containers and packaging. Shipments of mill products and ingot to consuming industries are presented in Table 1 (appended).

Mill products in the first 10 months of 1959 increased 34 per cent over the same period of 1958, and ingot shipments (other than for conversion to mill products) were 57 per cent higher. Shipments were abnormally high in the middle of the year as the result of inventory building by consumers, who were taking advantage of the guaranteed price protection given by the major producers until June 30 and who were acting in anticipation of a possible strike. Shipments dropped sharply in August but

recovered somewhat in September. October shipments were up to about the average monthly level of the year. Producer inventories increased in the early months of the year and then declined through July as shipments exceeded production. With the lower level of shipments in later months, producer inventories again increased, but it is believed that year-end inventories will be not much different from the beginning of the year. No data are available on consumer inventories, but there is agreement that a substantial accumulation has occurred. However, the October level of shipments is evidence that this accumulation will not affect future producer shipments too greatly.

Ingot shipments, for other than conversion into mill products, include metal for castings, destructive uses, and exports. Shipments of castings as reported for the first 9 months of 1959 were up 40 per cent above the same period in 1958, but the actual increase is estimated at less than 30 per cent because revisions were made in the survey beginning with January 1959 which make the 1959 figures not strictly comparable with 1958. Reported figures are presented in Table 2 (appended).

In 1958, the producers shipped 323,128 tons of metal to the govern-

ment their "put rights." These rights were part of the contracts made by the Government with the primary producers to expand aluminum facilities after the beginning of the Korean conflict. Under these contracts, the Government for a period of 5 to 6 years following initial production from the facility is required to purchase metal from the new facility which the producer is unable to use or market in his normal operations. In the first 10 months of 1959, the producers shipped only 63,552 tons under these contracts. These contracts have now expired except for that of Harvey Aluminum (Inc).

Domestic primary production in 1959 is estimated at 1,950,000 tons, just about the level scheduled at the beginning of the year, and 25 per cent above 1958. During the year, some upward revisions occurred, but subsequent cuts were then made. November production was about 80 per cent of installed capacity. Secondary recovery for 1959 is estimated at more than 25 per cent above 1958.

Imports of primary aluminum in 1959 are estimated at a little below 1958, but 1959 primary imports were about 13 per cent of domestic production. Imports from Canada dropped off by 21 per cent for the first

TABLE 1—NET SHIPMENTS OF ALUMINUM PRODUCTS TO CONSUMERS

	(Million Pounds)			
	Year	—January-October—		Percent
	1958	1958	1959	change*
Total mill prods. & ingot . . .	3,570.4	2,934.8	4,108.1	+ 40.0
Primary and secondary ingot . .	973.5	789.5	1,239.9	+ 57.1
Mill prods, total	2,596.9	2,145.3	2,868.2	+ 33.7
Sheet, nonheat-treatable . . .	944.4	783.4	1,084.5	+ 38.4
Sheet, heat-treatable	209.1	170.5	200.2	+ 17.4
Foil	199.6	163.0	212.8	+ 30.5
Rolled rod, bar, struct. shapes .	75.8	60.4	109.8	+ 81.7
Wire, bare, conductor & nonconductor	44.2	36.0	54.5	+ 51.2
ACSR & bare alum. cable . .	174.8	148.9	172.2	+ 15.7
Wire & cable, insul. or cover .	51.0	41.1	50.4	+ 22.6
Extruded shapes, alloys other than 2000 & 7000 series . .	693.3	572.0	780.2	+ 36.4
Extruded shapes, alloys in 2000 & 7000 series	49.8	39.3	40.3	+ 2.3
Drawn tube	59.9	50.6	62.6	+ 23.7
Welded tube	18.7	15.4	26.3	+ 71.2
Powder & paste	25.6	22.1	30.0	+ 35.6
Forgings	50.7	42.6	44.4	+ 4.4

* Calculated from original figures in thousands of pounds. Source: Bureau of the Census; October preliminary.

10 months, but imports from France, Austria, Norway, Italy and other countries increased.

Imports of semifabricated products almost doubled in 1959 over 1958, and represented over 6 per cent of domestic shipments in the broad categories involved; for certain specific products the percentage was higher. Imports for the first 10 months of 1959 of "plates, sheets, bars, rods, circles, etc." increased by 91 per cent and foil increased by 81 per cent as compared with the same period of 1958.

Exports of crude metal and scrap increased sharply during the year as compared with the previous year. Crude metal exports were up 83 per cent, reflecting shipments made by domestic producers to affiliated foreign plants, and scrap exports were up 47 per cent. The percentage of domestic primary production represented by crude metal exports increased from 3 per cent at the beginning of the year to about 8 per cent in October 1959, the last month for which exports are available. Scrap exports as a percentage of domestic consumption increased from 4 per cent at the beginning of the year to 8 per cent in October 1959.

Details on imports and exports are given in Table 3 (appended).

The price of aluminum pig in the U. S. was raised 1.3 cents a pound to 26 cents in mid-December, to bring

the price back to the 1957 level, following a $\frac{3}{4}$ cent increase earlier in other world markets by Aluminium Limited. The price had been cut in April 1958 from 26 cents to 24 cents, and a price of 24.7 cents was set in August 1958.

Labor contracts with the major producers expired in August 1959 and work has continued with the understanding that any contract economic changes would be made retroactive to the contract termination date. A new contract for a 3-year period was signed in late December.

Industry capacity for producing primary aluminum was rated at 2,336,000 tons at the end of 1959, up 141,500 tons during the year. Another 269,000 tons is scheduled to be installed by 1961.

Capacity for producing semifabricated shapes was also expanded during the year. Two newly integrated producers began sheet-rolling operations, and a company producing utensils put in a hot rolling mill. A 14,000 ton and a 5,200 ton extrusion press were installed by an integrated producer. Producers continued their modernization of production facilities, expanded their research and development activities, and offered more diversified and new products.

Many new developments occurred in the industry in 1959. New and improved alloys were developed, one of

the new compact cars used an aluminum engine; prefabricated homes using extensive amounts of aluminum were sold in substantial number; a new building sheet was introduced; new types of aluminum cans were introduced; a large order for gondola railroad cars and covered hoppers was placed; and new military applications were developed.

The 1960 Outlook

The 1960 outlook for aluminum is for continuing growth, which is expected to be from 2 to 2½ times the improvement expected in general industrial production. This assumes no major setback will occur as a result of strikes or other reasons.

Automobiles will use about 13 to 15 per cent more aluminum per car in 1960 than in 1959. The expected 22 per cent increase in the domestic production of automobiles indicates about a 40 per cent increase in the use of aluminum by the automobile industry. The overall physical volume of construction is expected to be about the same in 1959 as in 1958, but more aluminum is expected to be used. Appliances and other consumer goods will be produced at a higher rate in 1960, it is anticipated, and will use more aluminum, as will various types of machinery and equipment. Increasing amounts of aluminum will be used in containers and packaging with the increased use of foil packaging and aluminum cans. More aluminum is also expected to be used for steel deoxidizing and for alloying with other metals. As for defense uses, aircraft programs are expected to take less aluminum but other programs, such as missiles and equipment, are expected to take more.

Consumer inventories have been built up in 1959 and this will have an effect on producer shipments in 1960. On the other hand, the development of a few new major uses may stimulate consumption even more.

A reasonable expectation is for a 10 to 15 per cent improvement in 1960 shipments to consumers.

50 Million Lbs. Aluminum Seen Used in Cans in '60

More than 50-million pounds of aluminum will be used by America's can making industries during the coming year, according to a Kaiser Aluminum & Chemical Corp. survey.

This "conservative forecast" compares to an estimated 15,000,000 pounds of aluminum used in cans during 1959, it was stated.

TABLE 2—SHIPMENTS OF ALUMINUM CASTINGS
(Thousands of Pounds)

	Year 1958	January-September* 1958	1959	Percent change*
Total castings	596,456	425,477	597,351	+40.4
Sand	117,421	85,076	106,457	+25.1
Permanent mold	185,599	132,498	213,339	+61.0
Die	292,600	207,246	276,713	+33.5
Other† .....	.....	.....	.....	.....

* Revisions in the survey were made beginning with January 1959 which increased the level of total castings by about 10 per cent; the level of permanent mold castings was raised by about 20 per cent.

† Not published because standard error too high.

Source: Bureau of the Census.

TABLE 3—IMPORTS AND EXPORTS OF ALUMINUM
(Thousands of Pounds)

	Year 1958	January-October— 1958	1959	Percent change
Imports, total	592,015	485,715	509,006	+ 4.8
Metal & alloys, crude	510,643	422,286	399,006	- 5.6
Scrap	19,843	15,655	19,195	+22.6
Plate, sheet, etc.	55,887	43,535	83,194	+91.1
Foil	5,542	4,152	7,495	+80.5
Powder	100	87	116	+33.3
Exports, total	174,866	141,829	222,133	+56.6
Metal & alloys, crude	105,423	82,320	150,625	+83.0
Scrap	37,812	31,878	46,891	+47.1
Bars & rods	3,040	2,813	1,011	-64.1
Wire & cable	8,748	7,866	6,165	-21.6
Extruded & drawn shapes — & tubes	6,654	5,658	5,152	- 8.9
Plates & sheets	8,672	7,435	8,753	+17.7
Foil & leaf	590	487	852	+74.9
Powder & paste	662	548	727	+32.7
Castings & forgings	3,265	2,824	1,957	-30.7

Source: Bureau of the Census.

TIGHTNESS OF PHYSICAL COPPER SUPPLY IN BRITAIN NOT AS APPARENT IN PRICES AS HAD BEEN EXPECTED

1960 Consumption Likely to Set Record High; Uncertainty Noted in Tin Market; Lead Improvement Anticipated; Zinc Outlook Favorable

January 7, 1960

THE continued reluctance of the American copper strikes to really come to an end has remained, of course, the keynote of the copper market. The fact that a resumption of full production has been expected from week to week for about a month now, does not alter the fact that the actual physical supply position of the metal gets steadily tighter and tighter although this is, perhaps, not quite as apparent in prices as might have been expected.

This is due to the fact that in the expectation of a resumption of full production fairly soon, some buyers are inclined to hold off the market in the hope of lower prices. Most experienced observers here now seem convinced, however, that the rebuilding of depleted inventories (particularly in America but, to a lesser extent, also elsewhere) will suffice to give the market a firm undertone for some months to come. The current guessing is that prices may well settle down somewhere in the region of £240 a ton

U. K. COPPER STATISTICS

According to the British Bureau of Non-Ferrous Metal Statistics, production of refined copper during October fell to 7,992 tons of primary (9,320 tons) and 9,194 tons of secondary (9,964 tons). Stocks of refined copper again showed a decline in October at 54,002 tons (66,178 tons) as did blister at 10,600 tons compared with the September total of 11,625 tons. Of the refined stocks, consumers held 28,518 tons compared with 34,232 tons the previous month. There was an increase in consumption at 61,101 tons (57,367 tons). Details are given below:

	—10 months ending—			
	Oct. 1959	Oct. 1958	Oct. 1957	Oct. 1956
Unalloyed Copper Products:				
Wire*	22,202	241,239	183,887	
Rods, bars & sections	2,031	17,699	16,110	
Sheet, strip & plate	5,498	47,327	47,657	
Tubes	6,840	51,645	54,634	
Castings & miscellaneous	650	6,500	6,500	
Alloyed Copper Products:				
Wire	1,812	12,893	14,790	
Rods, bars & sections	13,711	98,565	113,398	
Sheet, strip & plate	10,163	73,874	84,067	
Tubes	2,230	19,399	18,066	
Castings & miscellaneous	6,898	61,003	60,857	
Copper sulphate	1,413	21,422	27,218	
Total all products	73,448	651,556	627,174	

Copper content of output	61,101	550,823	512,765
Consumption of refined copper†	47,345	440,719	386,935
Consumption of copper and alloy scrap‡ (copper content)	13,756	110,104	125,830

* Consumption of H. C. copper and cadmium copper wire rods for wire and production of wire for export.

† Virgin and secondary refined copper.

‡ Consumption of copper in scrap is obtained by the difference between copper content of output and consumption of refined copper, and should be considered over a period since monthly figures of scrap consumption are affected by variations in the amount of work in progress.

By L. H. TARRING

London, England

for at any rate the first quarter of the year.

European consumers have not had to draw on their stocks to anything like the same extent as have American users but it is thought that, as a whole, European buyers are rather underbought for the first quarter and there seems no doubt that all available first quarter supplies will be snapped up with the greatest readiness.

Consumption prospects in Europe and, indeed, for the whole world, for the coming months seem to be distinctly promising. The weakest spot here for some time, of course, has been the wire rod and wire section of the industry; but even this has recently had something of a "shot in the arm" by the receipt of orders from China for something like 25,000 tons of wire rod for delivery over the greater part of this year.

Naturally, everybody concerned with copper is busily trying to foresee the probable trend of events during the coming year but this seems to resolve itself into part serious statistical exercise and part guessing game. The guessing part comes in in trying to forecast whether 1960 will prove to be a miracle year by being devoid of serious strikes in the copper industry. However, all the economic pointers suggest that total consumption of copper this year will be larger than in 1959 and, in all probability, will constitute a record.

On the other hand, it has to be remembered that 1959 opened with a substantial theoretical surplus of capacity over estimated requirements and that this was becoming very apparent before the big U.S. strikes completely changed the supply picture. In 1960 production capacity will be appreciably larger than it was in 1959 and, even allowing for a very favorable rate of consumption, seems likely to be appreciably larger than consumption.

Given uninterrupted output at all

the major producing centres throughout the year one might expect therefore that after a good tone in the first few months while consumers are rebuilding depleted inventories, stocks will gradually build up. Unless producers are prepared to take prompt action in trimming the rate of production to the level of demand, some downward pressure on prices might ensue.

A feature of the last year or two has been the substantial increase in the world's electrolytic refinery capacity which seems likely to lead to a marked shrinkage in the volume of blister copper coming on to the open market and may well pose some serious problems for fire refineries in the future. In this connection, it may be recalled that in 1959 the Ndola refinery in Northern Rhodesia came into operation, treating largely Roan Antelope blister and Kennecott have been busily building a new electro refinery near Baltimore (based on Braden blister) which is currently starting to come into production. It is understood that all the big blister output of the Southern Peru Corporation will be marked as electro after being converted in the U.S.A. and

U. K. TIN STATISTICS

Tin consumption during October showed a decline at 1,915 tons compared with 2,073 tons in September, according to the British Bureau of Non-Ferrous Metal Statistics. Production showed a further gain of 3,101 tons (plus 30 tons secondary) compared with 2,229 tons (20 tons) the previous month. Stocks against showed a slight decline at 10,624 tons against 10,762 tons in September. Details of consumption of primary tin are given below:

	—10 months ending—			
	Oct. 1959	Oct. 1958	Oct. 1957	Oct. 1956
Tinplate	860	8,108	8,198	
Tinning:				
Copper wire	40	425	446	
Steel wire	41	80	88	
Other	58	614	653	
Total	119	1,119	1,187	
Solder	229	1,562	1,886	
Alloys:				
Whitemetal	248	2,378	2,460	
Bronze & gunmetal	198	1,906	1,675	
Other	44	340	363	
Total	490	4,624	4,498	
Wrought tin*				
Foil & sheets	44	208	273	
Collapsible tubes	34	235	201	
Pipes, wire & capsules	2	32	30	
Total	80	475	504	
Chemicals†	137	835	1,195	
Other uses‡		93		
Total all trades	1,915	16,817	17,468	

* Includes Compo and 'B' Metal.

† Mainly tin oxide.

‡ Mainly powder.

AVERAGE BRITISH PRICES FOR COPPER, TIN, LEAD, ZINC

(Per Long Ton)

Mean of Bid and Asked Cash Quotation at Close of Morning Session on London Metal Exchange

	COPPER			TIN			LEAD		ZINC	
	Cash	3 Months	Settlement	Cash	3 Months	Settlement	Current Month	3rd Following	Current Month	3rd Following
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1954 Averages	248 17 11	239 17 7	249 0 11	719 8 11	709 17 7	720 6 7	98 8 12	94 7 4	78 5 4	77 16 11
1955 Averages	351 14 11	341 0 3	352 5 6	740 2 12	736 12 11	740 12 8	105 17 3	105 9 6	90 13 4	88 12 3
1956 Averages	328 14 8	324 13 1	329 1 8	767 14 9	774 7 7	758 13 3	116 6 5	114 8 9	97 14 3	95 3 7
1957 Averages	219 8 10	221 0 3	219 12 6	787 15 4	747 10 10	755 3 11	96 12 9	96 13 2	81 11 7	80 1 1
1958 Averages	197 13 3	197 9 3	197 16 11	734 18 6	734 17 11	735 6 1	72 15 8	73 6 10	65 17 12	65 10 12
1959										
January	230 2 0	227 5 10	230 5 0	758 15 6	759 4 9	759 2 10	71 17 0	72 3 3	74 17 8	72 18 8
February	236 4 2	235 10 8	236 7 6	772 9 9	773 9 0	772 15 0	69 19 4	70 16 6	73 13 8	71 19 8
March	248 10 3	247 12 2	248 13 6	779 14 9	783 5 9	780 1 6	69 10 3	71 4 2	75 2 5	73 18 8
April	240 0 5	240 6 6	240 3 5	782 5 8	783 15 5	782 11 4	69 1 0	70 8 4	72 13 9	72 9 2
May	236 4 2	236 11 6	236 6 9	784 4 3	784 10 9	784 10 0	70 16 0	71 13 10	77 7 1	75 17 6
June	230 0 11	230 0 4	230 3 8	788 7 9	789 8 10	788 14 1	69 13 4	71 5 8	78 8 2	77 6 11
July	220 17 6	221 14 9	221 0 3	792 6 6	790 16 4	792 13 6	70 5 0	71 1 2	80 10 7	79 13 4
August	232 16 9	231 9 3	233 0 0	792 18 6	791 18 3	793 4 6	72 3 3	73 3 1	85 5 11	83 19 5
September	230 7 6	230 8 8	230 10 3	792 15 0	792 6 4	793 0 5	70 14 5	72 1 10	86 1 5	84 19 10
October	241 18 5	236 17 5	242 2 11	794 2 9	794 8 2	794 8 2	70 12 5	71 12 2	91 7 4	89 9 2
November	250 11 8	241 7 7	250 18 1	795 7 5	795 14 6	795 13 4	72 2 11	72 7 10	94 18 8	90 8 7
December	255 8 10	239 15 1	255 14 7	789 3 2	785 8 8	789 11 4	72 13 11	72 9 0	95 3 10	90 3 3
1959 Averages	237 13 1	234 15 7	237 16 8	785 7 10	785 10 0	785 14 2	70 15 7	71 13 9	82 4 8	80 5 4

Europe under period contracts and now Anaconda has announced its intention of building a new electrolytic refinery in Chile which will treat a good deal of material from El Salvador. In the Belgian Congo, work is still going on at the new Lulu electrolytic refinery which is expected to start up later this year and work up to an annual output of 50,000 tons.

Tin Holds Stable

On the surface, the tin market has continued to look fairly stable during the past month but underneath there has been a degree of uncertainty in the minds of dealers and consumers as to whether consumption in the opening months of 1960 would be large enough to absorb the much increased quotas which came into force on January 1st. Until just recently this aspect was further complicated by uncertainty as to whether there would be a recrudescence of the U.S. steel strike but fortunately that threat has now been removed and it is assumed that U.S. tin consumption will run at a high level. Indeed, by comparison with recent years, world consumption is expected to make quite a good

showing as the tinplate, motor car and other consuming industries seem headed for a period of high production.

Even so, current estimates foreshadow a surplus of supplies over demand on the assumption that Russia and China will continue to ship tin to the western world. This is the biggest unknown at the moment as although it is coming to be believed that Russian supplies are likely to be less of a menace than they were in 1958 and 1959, everyone is asking what China will do. Obviously the Buffer Stock Manager has ample funds to support the market should the need arise but it is hard to credit that the International Tin Council will wish to see the Buffer Stock built up to anything like its maximum potential in the final 18 months of the present Agreement—at any rate until it is definitely known whether the Agreement will be renewed. For the time being, however, prices seem to be holding their own quite well.

Export Lead Improvement

Although it has not been officially announced, it is generally understood that producers concerned with the voluntary curtailment of supplies to the world market during 1959 are prepared to continue these in force for at least another six months. There have been indications recently that the European supply position has become less top heavy than it was earlier in the year and prices have reflected this to some extent. If supplies are kept down to the level of recent months, it is expected that there will be some further moderate improvement in prices, probably to around £80 a ton, as consumption is running at a reasonably good level thanks to the generally favorable economic conditions throughout Europe as a whole.

It remains true that consumption is not expanding to the extent that the general level of trade might have led

one to hope, so that it is not easy at the moment to see just how, or when, the supply restrictions will be able to be removed. At least it can be said, however, that the lead market is now on a firm economic base free from artificial Government support in America or elsewhere. The next meeting of the International Lead and Zinc Study Group has now been fixed for January 27th in Geneva when, no doubt, the whole situation will be reviewed. It will be surprising, however, if anything very startling emerges from this meeting apart from an official announcement to the effect that output restrictions will be continued.

Zinc Little Changed

On balance, there has been little change in zinc prices on the London market during the past month. With a further 3,000 tons of British Government stocks being released during January, consumers are not over anxious.

U. K. ZINC STATISTICS

According to the British Bureau of Non-Ferrous Metal Statistics, zinc stocks fell to 35,994 tons at the end of October against 40,995 tons a month previously. Of this total, consumers held 19,175 tons. Production declined to 5,106 tons compared with the September total of 7,111 tons. Consumption details are given below:

	—10 months ending—		
	Oct. 1959	Oct. 1958	Oct. 1957
Brass	10,582	78,689	88,690
Galvanizing	8,125	74,265	78,903
of which:			
General	3,120	27,840	27,925
Sheet	1,762	17,612	19,667
Wire	1,773	16,902	16,587
Tube	1,470	11,911	14,724
Rolled zinc	2,294	21,080	19,838
Zinc diecasting & forming alloy	2,368	22,280	23,342
Zinc dust	5,404	40,267	45,459
Miscellaneous uses	1,038	8,569	9,610
	875	9,218	8,990
Total all trades	30,686	254,368	274,832

of which:

Slab zinc			
High purity (99.99%)	5,891	43,777	49,277
Electrolytic & high grade (99.95%)	6,005	48,788	51,737
G.O.B. Prime Western & debased	11,192	93,015	100,991
Other virgin material	220	2,406	2,053
Remelted zinc	479	4,486	4,721
Scrap—(zinc content)			
zinc metal, alloys & residues	2,686	25,876	26,932
Brass & other copper alloys	4,213	35,744	39,121

METALS, JANUARY, 1960

U. K. LEAD STATISTICS

According to the British Bureau of Non-Ferrous Metal Statistics, lead stocks in the U. K. declined to 56,697 tons (47,547 tons imported and 9,150 tons of English refined) against the September figures of 63,121 tons (52,816 tons imported and 10,305 tons of English refined). Production during October dropped to 8,765 tons compared with 8,817 tons a month earlier. Full consumption details are given below:

	—10 months ending—		
	Oct. 1959	Oct. 1958	Oct. 1957
Cables	8,948	83,810	78,652
Batteries — as metal	2,922	24,432	24,583
Battery oxides	2,402	21,909	22,115
Tetraethyl lead	1,994	16,155	19,151
Other oxides & compounds	3,112	21,267	22,357
White lead	825	7,531	6,771
Shot	358	3,863	3,317
Sheet & pipe	6,860	55,533	57,287
Foil & collapsible tubes	440	3,485	3,058
Other rolled & extruded	724	4,869	5,661
Solder	1,377	11,110	12,148
Alloys	1,723	15,584	14,968
Miscellaneous uses	1,241	10,432	11,514

Total consumption 32,926 279,980 281,552

of which:

Imported virgin lead	15,597	138,847	143,281
English refined	8,439	63,316	62,454
Scrap including remelted	8,890	77,817	75,817

DOMESTIC COPPER MARKET FRUSTRATED OVER FAILURE TO END STRIKES AND RESUME UNIMPEDED PRODUCTION

Producers Hold at 33.00c and Custom Smelter at 35.00c; Zinc Advanced 0.50c to 13.00c for Prime Western at E. St. Louis; Lead Quiet but Firm at 12.00c Basis

January 22, 1960
FRUSTRATION over failure to clean up the copper strike situation continued to prevail during the month. Although scattered settlements were reached, Kennecott was still bogged down in a dispute with three craft unions while Anaconda and Phelps Dodge mere morassed in negotiations with the International Union of Mine, Mill and Smelter Workers.

Despite the copper strike snafu and the uncertainties when full production will be resumed, consumers showed a surprising lack of interest in acquiring the red metal. Prices were unchanged with producers quoting 33.00c a pound and one custom smelter selling for March delivery at 35.00c. Among the other metals, zinc was strong and advanced to 13.00c for Prime Western at East St. Louis while lead was quiet but firm at the 12.00c quotation at New York.

If in August anyone had been asked what the price of copper was likely to be if the strikes lasted into mid-January, the answer probably would have been 40.00c to 50.00c a pound. At the present time brass mills are hesitant buyers at above 37.00c a pound and only wire mills that are hard pressed for copper are known to be paying 37.50c for January metal. The fabricators are believed to be stretching their available supply as much as possible, hoping that by the time they have to scrape the bottom of the barrel, the strikes will be over. The factor that makes fabricators resist paying the higher prices that are being asked in the outside market, is that their products are being priced on a 33.00c copper market and they see no prospects of being able to recover any portion of the premiums. There appear to be little or no prospects of the producers raising their price above the 33.00c level.

Domestic Deliveries Dip

Domestic refined copper production and deliveries increased in December as stocks decreased, according to figures compiled by the Copper Institute. The 1959 totals, compared with those for the preceding

year, showed an increase in deliveries and declines in production and stocks.

Deliveries to fabricators in December were 90,123 tons, an increase of 6,497 tons over November's 83,626 tons. For all of 1959 deliveries rose to 1,312,412 tons from 1,179,416 tons.

Refined production in December at 46,302 tons was 9,003 tons more than the 37,299 tons turned out in November. But output for the year came to 1,221,612 tons, or 224,928 tons less than the 1958 total of 1,446,540 tons.

Refined stocks at the end of December dipped to 64,763 tons, or 9,879 tons less than the 74,642 tons on hand at the end of November. Stocks at the end of 1958 amounted to 80,722 tons.

Outside the United States crude production, refined production and deliveries showed increases in December over November, with refined stocks declining.

U. S. Consumption Off

U.S. consumption of refined copper by brass and wire mills and by nonferrous metal foundries declined sharply in December but for all of 1959 showed an increase over 1958. December consumption, at 88,706 tons, was 14,131 tons less than the 102,837 tons consumed in November. It also was the lowest for any month since the 81,500 tons consumed in the vacation month of July last year.

Domestic consumption of refined copper for all of 1959 came to 1,347,610 tons, or 181,481 tons more than the 1,166,129 tons for 1958.

The volume of new business that fabricators booked from their customers in December (in terms of refined copper) amounted to 67,039 tons, a sharp drop of 48,881 tons from the November level.

Since the fabricators' new bookings in December lagged behind shipments by 21,667 tons, their unfilled orders at the end of December declined by that amount bringing them to 202,775 tons.

Fabricators' stocks of refined copper at the end of December came to 414,757 tons, a gain of 2,356 tons over the preceding month. In addition

they had on order with producers 130,324 tons, so that their gross reserve was 545,081 tons. Of this total 340,349 tons were working stocks, so that their net reserve was 204,732 tons. Since their unfilled orders called for the use of 202,775 tons, they had a theoretical excess of 1,957 tons.

At the end of December the industry's stocks of refined copper in the hands of producers, fabricators and warehouses, amounted to 478,581 tons, an increase of 21,538 tons over the 457,043 tons at the end of November.

Situation in Lead

No longer affected by the strikes which are still snarling the copper industry, the lead market was on a quiet but firm basis. Most consumers were buying at the spot quotation, indicating that they did not expect the price to go below 12.00c New York. There was a heavy surge of buying early in January which subsided while consumers digested their stocks.

Discussing the outlook for lead, the Business and Defense Services Administration predicted that demand this year will probably show an increase of approximately 3½ per cent over the 1959 estimated figure of 1,100,000 short tons. This forecast is based on expectations of a moderate increase in requirements for storage batteries, tetraethyl lead, pigments, and solder. The 1959 total is about 11.6 per cent greater than the 986,000 tons consumed in 1958.

Lead consumption for batteries in 1959 is expected to be approximately 21 per cent higher than in 1958. This is due partly to the normal average annual increase in replacement batteries resulting from the ever-increasing number of cars and trucks in operation, partly to increased requirements for new car and truck production, replenishing of stocks of finished batteries in inventories, above normal replacement purchases resulting from customer deferral in 1958, and increased industrial requirements as a result of the step-up in industrial production over 1958.

Lead requirements for tetraethyl lead, used in the production of ethyl

gasoline, are expected to show a slight increase in 1959. This reversal of the downward trend of the two previous years is principally the result of a leveling off in the inroads being made in the high octane markets by the expanded production of high test gasolines made possible by improved refining methods.

Lead consumption for cable covering continues to decline as a result of a continued substitution of plastics, and aluminum for lead. Consumption of solder, caulking lead, and other metal products is expected to show a substantial increase for the current year, reflecting the higher levels of construction, and durable goods production, for 1959.

The estimated increase of approximately 22 per cent in automobile production in 1960, together with the 1959 net increase of around 2,000,000 new automotive vehicles added to the number already in use, is expected to increase lead consumption for batteries by almost 5 per cent in the coming year.

Consumption for tetraethyl lead in 1960 is expected to exceed estimates for 1959 by about 3½ per cent. This is based largely on the assumption that the present ratio of tetraethyl lead consumption to total gasoline consumption (because of declining aviation requirements as a result of the replacement of propeller driven planes by non-gasoline consuming jets) will continue unchanged in 1960.

In the metal products area, lead requirements for solder, ammunition, and several lesser categories are expected to more than offset a further decrease in lead cable covering.

Requirements for lead for pigments (principally red lead and litharge) are expected to increase between 5 and 8 per cent over the quantities used during the current year.

Optimism Over Zinc

The Government was also optimistic over the zinc outlook. BDSA said consumption of slab zinc in 1960 is expected to be approximately 15 to 17 per cent higher than 1959's estimated figure of 940,000 short tons. Consumption in galvanizing is expected to increase 40 per cent over last year's estimated 340,000 tons. Zinc base alloys for die castings should consume 6 to 7 per cent more zinc in 1960 in view of forecasts of increased automobile production. Brass mill requirements for zinc are expected to rise about 3 to 4 per cent.

Reflecting the improved market position, Prime Western Zinc moved up to 13.00c at East St. Louis. Even

prior to the boost, most producers of Special High Grade and regular High Grade advanced their premiums on these grades by 0.25c a pound. The new premiums are 1.75c and 1.50c a pound, respectively. The American Smelting and Refining Company, which did not advance its premiums, was expected to do so in the near future.

Zinc Statistics Bullish

The December zinc statistics were extremely bullish. The industry had anticipated a drop in zinc stocks of 20,000 to 25,000 tons. The actual reduction at the end of December was 21,738 tons, according to figures compiled by the American Zinc Institute. That decrease was due to the fact that the December shipments exceeded production by that amount. Since the beginning of 1959 the producers' zinc stocks have been reduced by 35,818 tons so that at the end of December they were 154,419 tons, the smallest that they have been since the end of November, 1957.

Domestic production of all grades of zinc in December came to 69,666 tons, a gain of 7,320 tons over November. Production is being kept down by the strike at the Anaconda properties.

The shipments to domestic consumers of all grades of zinc in December were 84,498 tons, an increase of 9,902 tons over November. For all of 1959 the shipments to consumers totaled 872,867 tons as against 767,735 tons in 1958, an increase of 105,132 tons or about 12 per cent.

Shipments for export and drawback in December were 6,906 tons as against 2,844 tons in November, a gain of 4,062 tons. That made the combined December shipments, 91,404 tons as compared with 77,440 tons in November, a gain of 13,964 tons. For all of 1959 the total shipments of all grades of zinc were 893,838 tons as compared with 805,325 tons in 1958, an increase of 88,513 tons.

Aluminum Output Up

Production of primary aluminum in the United States totaled 162,996 tons during December, an increase of 9,330 tons over the 153,666 produced in November, according to The Aluminum Association. Output in December of the preceding year came to 152,301 tons.

For all of 1959, primary aluminum output came to a new record annual high of 1,953,039 tons, an increase

of 387,483 tons over the 1,565,556 tons turned out in the preceding year.

Little Change in Tin

There was little change in the tin market during the month despite the removal of the strike threat in the steel industry. Spot Straits tin closed at 100.50c a pound on January 21, 1960 against 99.00c a pound on December 21, 1959.

Platinum Metals Higher

Platinum metal prices moved higher. The refiners' price for platinum advanced \$5 an ounce to \$82 in wholesale quantities and \$85 in retail lots. Palladium was boosted \$2 an ounce to \$24 to \$26 and rhodium was lifted \$15 to \$137 to \$140 an ounce.

Cadmium Advanced

A large producer of cadmium sticks, bars and platers' shapes announced a price advance of 10.00c a pound to a basis of \$1.50 a pound in lots up to one ton. The increase was attributed to heavier demand, both at home and abroad.

British Metal Markets

(Continued from Page 12)

ious with regard to the maintenance of adequate spot supplies. Nevertheless nearby metal continues definitely tight as is evidenced by the persistent substantial backwardation in L.M.E. prices. It is understood that the restrictions on supplies to the world market that were instituted last year are being lifted as from the beginning of 1960 and this should eventually ensure a sufficiency of zinc for all needs; but obviously it will take several months before the full impact of this is felt in the main consuming countries.

Meanwhile, the general picture with regard to consumption remains a favorable one as all the main zinc-using industries are busy and expect to remain so for months to come. Indeed, in several directions it is expected that further progress will be seen during 1960. The zinc alloy diecasting industry is particularly active and to some extent further progress is held up by lack of spare productive capacity.

In brass, it remains to be seen whether the recent tempo will be fully maintained when the American copper strikes are over and U.S. demand for brass products tapers off. Even so, with the electrical industry, motor cars and general engineering looking prosperous at the present time, brass should be in for quite a good year.

Washington Report

(Continued from Page 4)

national stockpile to restore commercial stocks to adequate levels.

Raymond F. Orr, president, Athletic Mining and Smelting Company, asserted that his company "is opposed to the quota procedure which in the long run can only reduce smelting capacity and make this country more dependent on importations of slab zinc which in a seller's market will be at whatever price foreign producers think the traffic will bear."

Herman D. Carus of Matthiessen & Hegeler Zinc Company said that, if the commission feels it should recommend to the Senate that duties on zinc should be raised, "differentiation should be made between slab zinc, which is in plentiful supply because our national productive capacity is close to our consumption, and concentrates, of which we have a deficiency of 40 to 50 per cent. It is our recommendation that the duty on zinc in concentrates be 50 per cent of the duty on slab zinc. Ore quotas then should be removed so that custom smelters would be allowed to produce their normal production of slab zinc."

Value of Mineral Output

Despite a slight rise in the total value of mineral output in the United States in 1959, a number of commodities — principally metals where strikes suspended operations — did not follow the upturn in economic activity, the Bureau of Mines, Department of the Interior, reported in a year-end summary.

The Bureau, in preliminary figures, estimated the value of mineral production for 1959 at \$17,100,000,000, compared with 1958's \$16,500,000,000. The record, \$18,100,000,000, was established in 1957.

The Bureau said the 1959 total value of all minerals, including fuels, was 2 per cent higher than in 1958, due largely to increased production in certain lines, since unit values were mostly steady. The few price increases for some products were offset by decreases in others. Nonmetal construction materials, crude petroleum, and natural gas contributed most of the increase in total value. Total value of fuels output rose from \$11,600,000,000 in 1958 to \$11,900,000,000 in 1959.

Among the materials registering declines in total value in 1959 were lead, fluorspar, silver, iron ore, an-

thracite coal, manganese ore, mercury, copper, gold, and chromite.

A 116-day steel strike led to a 12 per cent drop in the value of usable iron ore produced and was the principal factor in decline in value of metals output, from \$1,597,000,000 in 1958 to \$1,550,000,000 in 1959. Large increases in the mining of uranium ore, bauxite, and molybdenum compensated for part of the reduced value for other minerals. A strike in the copper industry reduced the quantity of refined copper from United States mines nearly 16 per cent. Lead and zinc quantities also dropped, but the combined total value of copper, lead, and zinc rose slightly because of higher prices.

Hunt Depleted Uranium Use

The Department of the Interior also disclosed that four Bureau of Mines research centers are cooperating with the Atomic Energy Commission in studies to find uses for mounting stockpiles of depleted uranium — a byproduct of the enriched uranium produced for the AEC.

The AEC already has on hand substantial quantities of this material in the form of uranium hexafluoride (called "depleted uranium" because most of the fissionable component, U-235, has been removed). Several thousand tons of this material probably could be made available each year, if Government or industry can develop applications for it, the Department explained.

Bureau of Mines studies — partly supported with AEC funds — are aimed at finding large volume uses for depleted uranium in the metallurgical and petroleum industries.

Government to Sell Nickel

In another development, the Government announced plans to sell approximately 19,000,000 pounds of cathode nickel from the Defense Production Act stockpile.

The General Services Administration said sales of the metal will be for domestic consumption. To accommodate small business requirements, the agency said it would accept orders as small as 20,000 pounds. The maximum sale in any one transaction will be 1,000,000 pounds, according to GSA.

The agency cited no specific selling price. It said inquiries should be directed to the Defense Materials Service, General Services Administration in Washington, attention George Casto.

The nickel was authorized for release by the Office of Civil and Defense Mobilization. GSA also was authorized to substitute approximately 16,000,000 pounds of cathode nickel

in the DPA inventory for sintered nickel from Nicaro production to pay balances due to previously negotiated settlements of premium-priced contracts.

Tin Also on Sale

GSA also reported that 537 long tons of Copan tin alloy held in the Government's inventory of defense materials would be offered to commercial users in the immediate future on a sealed bid basis. The agency had stated previous that the material would be made available at an established price.

The alloy was produced at the Texas City tin smelter when it was Government-owned.

In announcing the sealed bid sale, GSA officials said that offers on minimum quantities of five long tons or units of five long tons, f.o.b. storage site would be considered with the Government's right to reject all bids if not satisfactory. Bids will be accepted until the close of business on March 11.

The Copan is located for the most part at Granite City, Ill. with smaller amounts stored near Baltimore, Md. and Royce, N. J.

World Tin Picture

(Continued from Page 7)

In conjunction with the Government, they are attempting to create a sensible land development scheme which will recognize the asset-wasting nature of tin mining. They are pressing for further exploration and are involved in research aimed at returning used mining land to the production of agricultural crops. In their efforts the industry has received general approval.

Finally, as far as 1960 is concerned, the tin mining industry of Malaya recognizes that forces beyond their control will largely determine their relative success for the year. The largest of these factors, of course, is the U. S. consumer. The largest single segment of the U. S. consuming market is the steel industry, which manufactures tinplate. This one industry accounts for some 60.7 per cent of all of the virgin tin used each year in the United States. By and large, the consumption of tinplate, as well as the other major uses of tin including solder, bronze and brass, babbitt, and white metal alloys, appears destined for increased use here during the coming year.

Daily Metal Quotations for December, 1959

The following quotations are taken from the Daily Metal Reporter*
(In Cents Per Pound)

DECEMBER	Copper			Tin		Lead		Zinc			Alumi- num		Anti- mony		Silver				
	Producers' Price	Del. Conn.	Custom Smelters' or Outside Price	Electro Refinery f. o. b.	Lake Del.	Aver. Prompt Electrolytic Export Price f. a. s. N. Y.	Spot	Prompt	New York	Outside St. Louis	Prime West. f. o. b. St. Louis	Del. N. Y.	Brass Spec. f. o. b. St. Louis	High Grade Delivered	Spec. High Grade Delivered	30-Lb. Ingot 99 1/2% Plus (f. o. b.)	Domestic Spot 99.5% f. o. b. Laredo	(Gents Per Ounce) New York	
1	33.00		Nom.	Nom.	33.00	Nom.	99.375	99.375	13.00	12.80	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
2	33.00		Nom.	Nom.	33.00	Nom.	99.50	99.50	13.00	12.80	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
3	33.00		Nom.	Nom.	33.00	Nom.	99.50	99.50	13.00	12.80	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
4	33.00		Nom.	Nom.	33.00	Nom.	99.375	99.375	13.00	12.80	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
7	33.00		Nom.	Nom.	33.00	Nom.	99.125	99.125	13.00	12.80	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
8	33.00		Nom.	Nom.	33.00	Nom.	99.625	99.625	13.00	12.80	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
9	33.00		Nom.	Nom.	33.00	Nom.	99.75	99.75	13.00	12.80	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
10	33.00		Nom.	Nom.	33.00	Nom.	99.50	99.50	13.00	12.80	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
11	33.00		Nom.	Nom.	33.00	Nom.	99.25	99.25	13.00	12.80	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
14	33.00		Nom.	Nom.	33.00	Nom.	99.00	99.00	12.50	12.30	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
15	33.00		Nom.	Nom.	33.00	Nom.	98.75	98.75	12.50	12.30	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
16	33.00		Nom.	Nom.	33.00	Nom.	99.00	99.00	12.50	12.30	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
17	33.00		Nom.	Nom.	33.00	Nom.	99.125	99.125	12.50	12.30	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
18	33.00		Nom.	Nom.	33.00	Nom.	99.125	99.125	12.50	12.30	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	
21	33.00		Nom.	Nom.	33.00	Nom.	99.00	99.00	12.00	11.80	12.50	13.00	12.75	13.75	14.00	28.10	29.00	91.375	
22	33.00		Nom.	Nom.	33.00	Nom.	99.00	99.00	12.00	11.80	12.50	13.00	12.75	13.75	14.00	28.10	29.00	91.375	
23	33.00		Nom.	Nom.	33.00	Nom.	99.00	99.00	12.00	11.80	12.50	13.00	12.75	13.75	14.00	28.10	29.00	91.375	
24	33.00		35.00	33.60	33.00	Nom.	98.875	98.875	12.00	11.80	12.50	13.00	12.75	13.75	14.00	28.10	29.00	91.375	
28	33.00		35.00	33.60	33.00	Nom.	98.50	98.50	12.00	11.80	12.50	13.00	12.75	13.75	14.00	28.10	29.00	91.375	
29	33.00		35.00	33.60	33.00	Nom.	98.75	98.75	12.00	11.80	12.50	13.00	12.75	13.75	14.00	28.10	29.00	91.375	
30	33.00		35.00	33.60	33.00	Nom.	98.875	98.875	12.00	11.80	12.50	13.00	12.75	13.75	14.00	28.10	29.00	91.375	
31	33.00		35.00	33.60	33.00	Nom.	98.875	98.875	12.00	11.80	12.50	13.00	12.75	13.75	14.00	28.10	29.00	91.375	
AV.	33.00		35.00	33.60	33.00	Nom.	99.176	99.176	12.523	12.323	12.50	13.00	12.75	13.75	14.00	27.361	29.00	91.375	
HI.	33.00		35.00	34.60	33.00	Nom.	99.75	99.75	13.00	12.80	12.50	13.00	12.75	13.75	14.00	28.10	29.00	91.375	
LO.	33.00		35.00	32.60	33.00	Nom.	98.50	98.50	12.00	11.80	12.50	13.00	12.75	13.75	14.00	26.80	29.00	91.375	

* When split quotations prevail the daily average price is listed. The highs and lows for the month take into consideration the levels reached at both sides of such ranges.

Copper Brands

Deliverable Against Commodity Exchange, Inc.

Brand or Marks	Producer	Grade	Brand or Marks	Producer	Grade
B. E. R.	American Smelting & Refining Co. (Baltimore, Md.)	Electrolytic	C & H	Calumet & Hecla Consolidated Copper Co.	Lake
P. A.	American Smelting & Refining Co. (Maurer, N. J.)	Electrolytic	C. R.	Copper Range Company	Lake
T	American Smelting & Refining Co. (Tacoma, Wash.)	Electrolytic	Q. M. CO.	Quincy Mining Company	Lake
B. & M.	Anaconda Copper Mining Co.	Electrolytic			
AE	Andes Copper Mining Co.	Electrolytic	Brand or Marks	Producer	Grade
BOLIDEN	Bolidens-Gruvaktiebolag	Electrolytic	B. C. R.	British Copper Refiners, Ltd.	Fire Refined High Conductivity
C. C. R.	Canadian Copper Refiners Ltd. (Montreal)	Electrolytic	N. H. E.	Nassau Smelting & Refining Co., Inc.	Fire Refined High Conductivity
C de P Peru	Cerro de Pasco Corporation	Electrolytic	A M CO	United States Metals Refining Company	Fire Refined High Conductivity
C. C. C.	Chile Copper Company	Electrolytic	R H C		
F E C	Falconbridge Nickel Mines, Ltd.	Electrolytic			
K U E	Kennecott Copper Corp.	Electrolytic	Brand or Marks	Producer	Grade
L. M. C.	Lewin Metals Corporation	Electrolytic	*** (3 Star)	Braden Copper Company	Fire Refined (other than Lake & Fire Refined High Conductivity)
M U F	Mufulira Copper Mines, Ltd.	Electrolytic	K C M	Kennecott Copper Corporation	
N A	Norddeutsche Affinerie	Electrolytic	M T D	Messina (Transvaal) Development Co.	
O R C	Ontario Refining Co., Ltd.	Electrolytic	P. D. M.	Phelps Dodge Corporation	
A. L. S.	Phelps Dodge Refining Corp. (For Adolph Lewishohn Selling Corp.)	Electrolytic	R	United States Metals Refining Company	
L. N. S.	Phelps Dodge Refining Corp.	Electrolytic			
P * D	Phelps Dodge Corporation	Electrolytic			
N. E. C.	Raritan Copper Works	Electrolytic			
R E C	Rhokana Corporation	Electrolytic			
B O R	Rudnici Bakra i Topionice	Electrolytic			
U M K	Union Miniere du Haut Katanga	Electrolytic			
D R W	United States Metals Refining Co.	Electrolytic			
AMCO	United States Metals Refining Co.	Electrolytic			
OFHC	United States Metals Refining Co.	Electrolytic			
W E K	Zinnwerke Wilhelmsburg G.m.b.H.	Electrolytic			

† Subsidiary, American Metal Climax, Inc.

Official List of Approved Refiners Whose CATHODES are deliverable against Commodity Exchange, Inc., Copper Contract

American Smelting & Refining Co.	Mufulira Copper Mines, Ltd.
Anaconda Copper Mining Co.	Norddeutsche Affinerie
Andes Copper Mining Co.	Ontario Refining Co., Ltd.
Bolidens-Gruvaktiebolag	Phelps Dodge Refining Corp.
Canadian Copper Refiners, Ltd.	Phelps Dodge Corporation
Cerro de Pasco Copper Corp.	Raritan Copper Works
Chile Copper Company	Rhokana Corporation
Consolidated Mining & Smelting Co.	Rudnici Bakra i Topionice
Falconbridge Nickel Mines, Ltd.	Union Miniere du Haut Katanga
Kennecott Copper Corp.	United States Metals Refining Co.
Lewin Metals Corp.	Zinnwerke Wilhelmsburg G.m.b.H.

Lead Brands

Refined At	Producer	Brand Mark
Federal, Ill., U. S.	American Smelting & Refining Co.	*ALTON
Carteret, N. J., U. S.	United States Metals Refining Co.	**A M CO
Monterrey, Mexico	American Smelting & Refining Co.	*ASARCO MONTERREY
Port Pirie, Australia	Broken Hill Associated Smelters	*B.H.A.S.
Indianapolis, Ind., U. S.	National Lead Co., American Lead Plant	†aBLUE ARROW AMERICAN LEAD CORP.
Braubach a/Rhein, Germany	Blei-und Silberhutte Braubach	*Braubach dopp. raff. Deutschland
Idaho, U. S.	Bunker Hill Smelter	*BUNKER "C" HILL
Orya, Peru	Cerro de Pasco Copper Corp.	*CERRO PERU
Collinsville, Ill., U. S.	St. Louis Smelting & Refining Co.	†aCHEMICAL ST. L. S. & R. CO.
Monterrey, N. L., Mexico	Compania Metalurgica Penoles, S.A.	**C.M.F. y A.M.
Alton, Ill., U. S.	St. Joseph Lead Company	*DOE RUN
Oker, Germany	Unterharzer Berg- und Huttenwerke	*HARZ 99.985, HARZ 99.9
Joplin, Mo., U. S.	Eagle-Picher Mining & Smelting Co.	*EAGLE-PICHER
Kamioka, Japan	Mitsui Mining Co.	*E.M.K.
Stolberg, Rhineland, Germany	Stolberger Zinc Aktiengesellschaft fur Bergbau und Huttenbetrieb	*Eschweiler raffine
Federal, Ill., U. S.	American Smelting & Refining Co.	*FEDERAL
Chicago, Ill., U. S.	Goldsmith Bros. Smelting & Refining Co.	†G B
Hoboken, Belgium	Societe Generale Metallurgique de Hoboken	*H. E. R. Escaut
Alton, Ill., U. S.	St. Joseph Lead Company	*HERCULANEUM
Omaha, Neb., U. S.	International Smelting & Refining Co.	*ILR
Monsanto, Ill., U. S.	Lewin-Mathes Co.	†MONSANTO
Monteponi, Italy	Societa di Monteponi	*Monteponi
San Gavino Monreale, Sardinia, Italy	Montevecchio Societa Italiana del Piombo e dello Zinco	*Montevecchio
Hammond, Ind., U. S.	Metals Refining Company	†M R CO METALS REFINING CO.
Omaha, Neb., U. S.	American Smelting & Refining Co.	*OMAHA & GRANT
Overpelt, Belgium	Compagnie des Metaux d-Overpelt-Lommel et de Corphalie, S.A.	*Overpelt extra-raffine O.V.-L.L.-Dur.
Megrine, Tunis	Ste. Min. & Metall. de Penarroja	*Penarroja
Penarroja, Sopwith & Cartagena, Spain	Ete Min. & Met. de Penarroja	*Penarroja
Perth Amboy, N. J., U. S.	American Smelting & Refining Co.	*PERTH AMBOY
Genoa, Italy	Societa di Pertusola	*Pertusola
Alton, Ill., U. S.	St. Joseph Lead Company	*ST. JOE
Collinsville, Ill., U. S.	St. Louis Smelting & Refining Co.	†aST. L. S. & R. CO.
Selby, Calif., U. S.	American Smelting & Refining Co.	*SELBY
Trail, B. C., Canada	Consolidated Mining & Smelting Co. of Canada, Ltd.	*TADANAC
Baelen-Usines, Belgium	Ste. des Mines and Foundries de Zinc de la Vieille-Montagne Anglem	*Three Stars
Mexico, Yugoslavia	Central European Mines, Limited	*Vieille-Montagne Bar
Perth Amboy, N. J., U. S.	American Smelting & Refining Co.	*TREA
Hoboken, Belgium	The Tsamb Corporation	*TSMCO
Midvale, Utah, U. S.	United States Smelting, Refining & Mining Company	*TSMCO
E. Chicago, Ind., U. S.	United States Smelting, Refining & Mining Company	*USS CO
Norfolk, Va., U. S.	Virginia Lead Smelting Corp., The	*U S S CO ELECTRO
Staten Island, N. Y., U. S. A.	Nassau Smelting & Refining Co.	†aVIRGINIA
Newark, N. J., U. S. A.	Hudson Smelting & Refining Co.	Nassau Blue
Philadelphia, Pa., U. S. A.	Bers & Co., Inc.	Hudson Schuykill

*Deliverable against: Commodity Exchange, Inc., Lead Contracts without Certificate of Assay.

** Subsidiary of American Metal Climax, Inc.

† Deliverable against Commodity Exchange, Inc., Lead Contracts with Certificate of Assay of one of the Official Assayers of the Exchange.

a Subsidiary of National Lead Co.

United States Duties on Principal Ore and Metal Imports

(Including Revisions in Effect June 30, 1957, Under Geneva Agreements)

(Quantities Are in Pounds Unless Otherwise Stated; n.s.p.f. Stands for "Not Specially Provided For.")

COPPER

NOTE — The excise tax of 4c a pound on copper (which was reduced to 2c a pound by the Geneva Trade Agreement) was suspended in April, 1947, until March 31, 1949, and on expiration it was further suspended until June 30, 1950. The tax was reimposed on July 1, 1950. It was suspended again on May 22, 1951, retroactive to April 1, 1951, and until February 15, 1953, and again until June 30, 1954. Suspension further extended to June 30, 1955, and again until June 30, 1958. If import tax is restored, the 1956 Geneva Agreement provides for 5% reductions effective on June 30 of 1956, 1957 and 1958, provided the price is above 24c; if the price is below 24c the 2c tax would prevail.

Copper ore and concentrates, usable as flux, etc., copper content	1.70c lb.
Copper ore and concentrates, product of Cuba, copper content	free
Copper ore and concentrates, product of Philippines, copper content	0.17c lb.
Copper ore and concentrates, copper content	1.70c lb.
Regulus, black, or coarse copper, and cement copper, copper content	1.70c lb.
Unrefined black, blister, and converter copper in pigs or converter bars, copper content	1.70c lb.
Refined copper in ingots, plates or bars, copper content	1.70c lb.
Copper rolls, rods or sheets	1 1/4c lb. (plus 1.70c lb. ††)
Copper seamless tubes and tubing	3 1/4c lb. (plus 1.70c lb. ††)
Copper plain wire	12 1/2% (plus 1.70c lb. ††)
Copper brazed tubes†	4.50c lb. (plus 1.70c lb. ††)
Old and scrap copper, fit only for remanufacture; and scale and clippings, copper content	1.70c lb.

†† Copper content.

BRASS

Brass rods, sheets, plates, bars, strips, Muntz or yellow metal sheets, sheathing, bolts, piston rods, shafting and bronze rods, tubes and sheets	2c lb.
Brass tubes and tubing, seamless	2c lb.
Brass tubes, brazed, angles and channels	.6c lb.
Brass and bronze wire	12 1/2%

LEAD

NOTE — Import duties on lead-bearing ores, flue dust, and mattes of all kinds, lead bullion or base bullion, lead in pigs and bars, lead dross, reclaimed lead and antimonial lead were suspended February 12, 1952, and reimposed on June 26, 1952. Lead scrap duty was reimposed July 1, 1952.

Lead-bearing ores and mattes, n. s. p. f., lead content	3/4c lb.
Bullion or base bullion, lead content	1 1/16c lb.
Pigs and bars, lead content	1 1/16c lb.
Reclaimed, scrap, dross, lead content	1 1/16c lb.
Babbitt metal and solder, lead content	1 1/16c lb.
Pipe, sheets, shot, glaziers' lead, and wire	5/16c lb.
Type metal and antimonial lead, lead content	1 1/16c lb.
White lead	1.05c lb.
Litharge	1 1/4c lb.
Red lead	15/16c lb.
Orange mineral	1c lb.

ZINC

NOTE — Import duties on zinc-bearing ores, and on zinc in blocks, pigs and slabs were suspended February 12, 1952, and reimposed on July 24, 1952. Tax on old zinc and dross and skimmings reimposed July 1, 1953.

Zinc-bearing ores, except pyrites containing not more than 3% zinc, zinc content	6/10c lb.
Zinc contained in zinc-bearing ores, n. e. s., not recoverable, zinc content	6/10c lb.
Zinc, old and worn out, fit only for remanufacture	3/4c lb.
Dross and skimmings	3/4c lb.
Zinc in blocks, pigs or slabs	7/10c lb.
Zinc in sheets	1c lb.
Zinc sheets, plated with nickel or other base metal, or solutions	1 1/4c lb.

Zinc dust	7/10c lb.
Zinc die-casting alloys	12 1/2%
Zinc oxide and leaded zinc oxides containing not more than 25% lead, dry	3/5c lb.
ground in or mixed with oil or water	1c lb.

MISCELLANEOUS METALS AND ORES

Aluminum, metal and alloys, crude, except alloys elsewhere provided for†	1.25c lb.
Aluminum scrap	free
Aluminum plates, sheets, bars, rods, circles, squares, etc.†	2.50c lb.
Antimony ore, antimony content	free
Antimony metal and regulus	2c lb.
Antimony needle or liquidated	1/4c lb.
Antimony oxide	1c lb.
Antimony sulphides	1/2c lb. & 12 1/2%
Arsenic, metallic†	2.50c lb.
Arsenious acid or white arsenic	free
Bauxite, crude*	free
Bauxite, refined**	1/4c lb.
Bismuth	1 1/4%
Bismuth salts and compounds	35%
Beryllium metal†	21%
Beryllium ore	free
Cadmium	3 3/4c lb.
Cadmium flue dust, cadmium content	free
Chrome ore or chromite	free
Chrome or chromium metal†	10 1/2%
Cobalt metal	free
Cobalt ore and concentrates, cobalt content	free
Magnesium, metallic†	50%
Magnesium powder, sheets, wire†	17c lb. & 8 1/2%
Magnesium alloys	20c lb. & 10%
Magnesium scrap	free
Manganese ores, containing over 10% manganese, manganese content	1/4c lb., except Cuba, free
Molybdenum ore or concentrates, molybdenum content†	30c lb.
Nickel ore, matte and oxide	free
Nickel and alloys, nickel chief value, n. s. p. f., in pigs, ingots, shot, cubes, grains, cathodes, or similar forms	1 1/4c lb.
Nickel, bars, rods, plates, sheets, castings, strips, wire or electrodes	12 1/2%
Nickel scrap	free
Nickel tubes, tubing	6 1/4%
(if cold rolled, drawn or worked — 2 1/2% extra)	
Platinum, grain, nuggets, sponge and scrap, oz. troy	free
Platinum in ingots, bars, sheets, or plates, not less than 1/8 in. thick, oz. troy	free
Platinum, ores, platinum content, oz. troy	free
Quicksilver or mercury	25c lb.
Selenium and salts	free
Tantalum	12 1/2%
Tin ore, cassiterite, and black oxide of tin, tin content	free
Tin in bars, blocks, pigs, grain, granulated, and scrap, and alloys, chief value tin, n. s. p. f.	free
Tungsten ore or concentrates, tungsten content	50c lb.

*Crude bauxite import duty suspended through July 15, 1960. **Under Public Law 25 alumina imported for use in aluminum production is free for entries from July 17, 1954 through July 15, 1960. †Tariff reduced 5% on June 30, 1958, under Geneva Agreement which expires on June 30, 1959.

Copper Statistics Reported by Copper Institute

Combined Totals in U. S. A. and Outside U. S. A.

	Crude Production		(In tons of 2,000 pounds)			Stock Increases or Decreases		
	Primary	Secondary	Refined Production	Deliveries to Customers	Refined Stock End of Period	Blister	Refined	Total
1957 Total	2,897,719	123,270	3,035,588	2,853,307	458,340	-14,599	+103,920	+89,321
1958 Total	2,707,926	138,696	2,805,622	2,916,588	258,874	+41,000	-199,466	-158,466
1959								
January	257,682	12,377	270,995	248,574	284,545	-936	+22,001	+21,065
February	244,405	12,737	264,018	243,741	304,303	-6,876	+19,578	+12,882
March	270,248	17,019	285,425	270,768	319,241	+1,842	+14,938	+16,780
April	265,937	15,653	278,959	270,262	329,871	+2,631	+10,630	+13,261
May	279,629	11,695	283,024	266,378	350,343	+8,300	+20,472	+28,772
June	277,855	12,347	284,420	294,232	345,429	+5,782	-4,914	-868
July	256,729	9,198	274,752	231,138	374,519	+16,583	-15,035	+1,548
August	232,944	4,552	223,452	237,944	378,649	+11,543	-11,519	+24
September	186,837	7,652	187,294	232,282	354,926	+7,195	-23,723	-16,528
October	184,409	10,955	181,707	(Oct. 1) 210,945	356,614			
November	192,353	10,631	186,496	229,281	330,438	+13,657	-26,176	-12,519
December	211,222	9,767	203,614	238,179	311,049	+16,388	-19,387	-3,001
Total	2,860,101	134,583	2,926,657	2,973,110	293,006	+68,027	+28,774	+96,801

In U. S. A.

1957 Total	1,116,380	112,060	1,616,964	1,277,946	181,024	.....	+60,379	.....
1958 Total	1,008,170	131,294	1,446,540	1,179,416	80,722	.....	-12,874	.....
1959								
January	95,542	11,284	137,361	114,425	80,780	.....	+58	.....
February	88,432	11,425	142,235	120,134	85,523	.....	+4,743	.....
March	101,410	16,120	140,928	124,220	85,952	.....	-2,751	.....
April	98,376	14,287	137,490	135,233	74,323	.....	-8,629	.....
May	104,236	9,933	135,031	135,135	86,132	.....	+11,809	.....
June	99,419	11,352	138,403	150,117	85,674	.....	-458	.....
July	81,662	8,323	134,020	108,127	103,432	.....	+17,558	.....
August	51,327	3,994	83,677	90,123	94,109	.....	-9,323	.....
September	19,503	6,578	44,468	92,501	79,826	.....	-14,283	.....
October	20,931	9,861	44,218	(Oct. 1) 68,648	81,514	.....	-3,206	.....
November	18,351	9,710	37,299	83,625	74,462	.....	-3,666	.....
December	23,250	8,595	46,302	90,123	64,763	.....	-9,879	.....
Total	802,439	121,462	1,221,612	1,312,412	64,763	.....	-17,647	.....

Outside U. S. A.*

1957 Total	1,783,119	11,210	1,418,624	1,575,361	277,316	.....	+43,541	.....
1958 Total	1,699,756	7,402	1,359,082	1,737,172	178,152	.....	-99,164	.....
1959								
January	162,140	1,093	133,634	134,149	203,765	.....	+21,943	.....
February	155,973	1,312	121,783	123,607	218,780	.....	+15,015	.....
March	168,838	899	144,497	146,548	236,232	.....	+17,502	.....
April	161,561	1,366	141,469	135,029	255,548	.....	+19,259	.....
May	175,393	1,762	147,993	131,243	264,211	.....	+8,663	.....
June	178,436	995	146,017	144,115	259,755	.....	-4,456	.....
July	175,067	857	140,732	123,011	286,122	.....	+26,367	.....
August	181,617	558	142,276	147,821	284,540	.....	-2,196	.....
September	167,354	1,047	142,646	139,781	275,100	.....	-9,440	.....
October	163,478	1,093	137,489	142,297	252,130	.....	-22,970	.....
November	173,902	921	149,197	145,655	236,407	.....	-15,723	.....
December	187,972	1,172	157,312	148,056	228,243	.....	-8,164	.....
Total	2,057,662	13,121	1,705,045	1,660,698	228,243	.....	+46,421	.....

* Excluding Russia, Yugoslavia, Norway, Sweden, Japan and Australia.

Electrolytic Copper

Producers' Price, Del. Valley

Monthly Average Prices

(Cents Per Pound)

	1956	1957	1958	1959
Jan.	43.00	36.00	25.69	29.00
Feb.	44.03	33.318	25.00	29.972
Mar.	46.00	32.00	25.00	31.14
Apr.	46.00	32.00	25.00	31.50
May	46.00	32.00	25.00	31.50
June	46.00	30.955	25.36	31.50
July	41.56	29.25	26.125	30.587
Aug.	40.00	28.639	26.50	30.00
Sept.	40.00	27.031	26.50	30.571
Oct.	39.308	27.00	27.548	30.75
Nov.	36.00	27.00	29.00	32.375
Dec.	36.00	27.00	29.00	33.00
Aver.	41.992	30.183	26.31	30.991

Electrolytic Copper

Custom Smelters' Price, Del. Valley

Monthly Average Prices

(Cents Per Pound)

	1956	1957	1958	1959
Jan.	50.22	34.87	24.577	29.429
Feb.	52.07	32.273	23.557	30.361
Mar.	53.11	30.952	23.326	33.21
Apr.	48.88	31.24	23.66	32.84
May	44.221	30.163	23.865	32.00
June	40.00	29.60	25.52	31.477
July	38.14	28.39	29.231	29.52
Aug.	39.32	27.862	26.52	30.056
Sept.	39.00	25.948	26.355	33.00
Oct.	37.192	25.722	28.577	33.00
Nov.	35.95	25.435	29.829	Nom.
Dec.	35.45	25.26	28.846	35.00
Aver.	42.797	28.93	25.905	29.122

Lake Copper

Producers' Price Delivered

Monthly Average Prices

(Cents Per Pound)

	1956	1957	1958	1959
Jan.	43.00	36.00	25.69	29.00
Feb.	43.783	33.182	25.00	30.00
Mar.	46.00	32.00	25.00	31.14
Apr.	46.00	32.00	25.00	31.50
May	46.00	32.00	25.00	31.50
June	46.00	30.955	25.00	31.50
July	41.68	29.25	25.75	30.587
Aug.	40.00	28.611	26.50	30.00
Sept.	40.00	27.00	26.50	31.107
Oct.	39.321	27.00	27.577	31.50
Nov.	36.00	27.00	29.00	32.833
Dec.	36.00	27.00	29.00	33.00
Aver.	41.975	30.162	26.251	31.222

Fabricators' Copper Statistics

(In tons of 2,000 pounds)

	Fabricators' Stocks of Refined Cop.	Unfilled Purchases of Refined by Fab. from Producers	Fabricators' Working Stocks	Unfilled Sales by Fabricators to Customers	Actual Copper Consumed by Fabricators	Excess Fabricators' Stocks Over Orders Bkd.
1953						
Total	380,881	25,022	309,664	170,917	1,375,869	— 74,678
1954						
Total	360,526	58,125	304,619	136,581	1,231,840	— 22,549
1955						
Total	.....	.....	.....	.....	1,418,241	.....
1956						
Dec.	437,187	117,601	336,217	183,834	99,223	+ 34,737
Total	.....	.....	.....	.....	1,416,378	.....
1957						
Mar.	429,410	104,551	338,454	164,623	106,170	+ 30,884
Apr.	429,708	98,638	335,921	164,410	117,041	+ 28,015
May	434,852	92,943	336,697	170,476	115,355	+ 20,622
June	426,905	82,919	340,743	153,042	110,527	+ 16,039
July	432,918	85,728	341,684	144,410	77,991	+ 32,552
Aug.	429,627	82,768	344,315	144,375	110,323	+ 23,826
Sept.	425,168	80,436	344,530	144,538	106,927	+ 16,536
Oct.	420,130	80,774	341,869	138,420	119,161	+ 20,615
Nov.	428,520	68,249	345,832	128,719	98,725	+ 22,218
Dec.	430,171	75,627	347,465	138,631	83,067	+ 19,702
Total	.....	.....	.....	.....	1,279,086	.....
1958						
Jan.	445,514	57,917	348,426	123,756	94,642	+ 31,249
Feb.	452,673	52,342	351,035	128,330	86,625	+ 25,650
Mar.	448,125	71,693	346,875	141,387	83,694	+ 31,556
Apr.	450,442	76,602	347,607	145,623	79,613	+ 33,814
May	441,001	78,194	346,404	138,190	88,447	+ 34,601
June	433,526	72,383	330,301	145,162	109,011	+ 30,448
July	431,796	77,362	326,263	153,529	79,353	+ 29,366
Aug.	421,931	78,194	323,667	150,436	96,717	+ 26,022
Sept.	416,887	71,025	319,281	145,390	105,474	+ 28,941
Oct.	399,113	91,019	315,929	156,692	138,017	+ 17,511
Nov.	419,914	88,580	328,238	157,799	110,487	+ 22,457
Dec.	447,123	90,401	326,438	177,869	92,573	+ 35,217
Total	.....	.....	.....	.....	1,165,364	.....
1959						
Jan.	457,387	101,182	337,761	172,698	108,556	+ 44,070
Feb.	459,046	123,321	390,522	183,113	116,565	+ 58,732
Mar.	449,441	130,785	334,904	211,547	133,259	+ 33,775
Apr.	463,582	125,250	337,282	204,618	120,680	+ 46,932
May	474,657	133,694	338,835	210,424	124,060	+ 59,092
June	492,072	111,229	343,585	191,875	133,702	+ 67,841
July	518,699	110,367	357,474	193,338	81,500	+ 68,254
Aug.	487,259	97,786	359,049	191,476	121,563	+ 34,520
Sept.	462,880	111,675	360,760	206,254	116,880	+ 7,541
Oct.	431,612	119,806	347,136	211,359	100,302	— 7,077
Nov.	412,401	127,162	338,856	224,442	102,837	— 23,735

Scrap Copper Receipts by Custom Smelters and Refineries in United States*

(In Short Tons)

	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Jan.	15,763	6,640	4,528	6,486	9,859	11,047	14,322	17,506	16,024	14,511
Feb.	12,500	5,153	3,633	10,337	8,490	15,198	14,497	11,145	9,518	14,712
Mar.	13,538	7,912	5,243	19,991	9,738	12,198	15,921	13,934	11,783	19,522
Apr.	12,304	8,553	6,214	16,583	9,004	13,162	17,233	14,288	15,279	17,525
May	8,749	8,458	8,033	10,857	8,687	15,133	20,805	12,397	13,989	13,960
June	20,523	8,628	4,425	10,945	13,309	14,765	14,758	11,949	13,945	15,065
July	10,040	6,642	5,188	9,063	10,260	9,988	12,632	8,926	12,185	11,144
Aug.	10,452	6,113	5,003	7,137	10,100	12,197	12,510	11,645	11,896	7,466
Sept.	4,903	3,561	4,667	9,042	10,641	15,037	9,518	9,756	9,268	10,070
Oct.	9,450	3,336	4,602	10,065	11,662	12,897	15,570	13,151	23,088	12,860
Nov.	9,237	3,179	4,724	7,815	10,879	9,865	11,369	11,146	16,425	11,773
Dec.	7,178	4,538	6,208	11,476	14,876	13,180	14,613	11,237	10,796	10,894
Total	142,067	71,812	62,470	129,798	127,449	154,714	173,748	147,080	164,196	159,507

* As compiled by Copper Institute.

Brass and Bronze Ingot Monthly Shipments (NET TONS)

The following figures showing the combined shipments of ingot brass and bronze are compiled by the Ingot Brass and Bronze Industry and represent in excess of 95 per cent of the deliveries of the entire industry.

	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Jan.	19,456	18,874	28,416	28,315	23,423	20,661	25,201	27,736	25,681	20,468	22,046
Feb.	15,026	18,487	27,168	24,211	25,429	19,920	25,349	24,949	20,769	17,413	23,746
Mar.	14,550	22,494	31,997	23,890	28,256	23,653	29,713	28,310	21,948	18,825	26,109
Apr.	10,695	22,118	30,473	22,547	25,044	24,746	27,641	25,808	23,507	18,009	26,115
May	11,114	23,643	33,267	21,740	21,660	22,269	23,708	23,437	22,037	17,191	23,967
June	9,696	25,093	35,817	21,274	20,818	22,348	23,141	18,842	18,888	17,962	22,922
July	10,220	21,699	32,016	18,947	19,321	17,074	18,513	17,364	16,895	16,658	20,346
Aug.	14,194	29,689	25,285	21,807	20,156	21,684	27,013	23,812	19,654	17,882	21,741
Sept.	16,208	28,811	22,285	22,770	21,463	22,464	26,349	20,929	19,670	20,540	22,686
Oct.	18,096	32,940	29,194	25,911	22,990	24,080	25,298	23,045	22,800	23,225	23,067
Nov.	18,488	31,748	25,544	23,441	21,806	23,061	25,102	21,818	19,767	20,758	22,283
Dec.	17,950	28,575	20,987	22,983	20,541	21,274	21,448	18,046	16,875	18,676	19,535
Total	175,643	303,563	332,378	277,736	271,251	263,233	298,406	274,096	248,297	227,607	274,562
Aver.	14,637	25,297	27,615	23,145	22,694	21,936	24,867	22,841	20,681	18,133	22,864

Mine Production of Copper in United States

(U. S. Bureau of Mines)

	Eastern	Missouri	Western	Total
1956				
Ttl.	79,681	2,130	1,018,496	1,100,307
1957				
Dec.	6,962	67	81,080	88,109
Ttl.	79,369	1,800	995,753	1,076,922
1958				
June	5,801	155	62,296	68,252
July	4,188	132	56,672	61,222
Aug.	5,570	127	61,342	67,039
Sept.	5,312	114	77,561	82,987
Oct.	7,002	60	85,075	91,518
Nov.	6,617	60	87,379	94,056
Dec.	6,614	70	88,070	94,514
Ttl.	76,849	1,250	902,021	980,304
1959				
Jan.	6,590	126	90,386	97,102
Feb.	5,883	130	81,889	87,902
Mar.	6,513	140	91,499	98,152
Apr.	7,240	150	93,295	100,685
May	7,007	110	94,277	101,394
June	7,245	124	86,861	94,230
July	6,763	124	80,488	87,375
Aug.	6,813	116	47,474	54,403
Sept.	6,655	123	19,159	25,937
Oct.	7,092	152	22,669	29,913
Nov.	3,226	140	22,529	25,895

Average Custom Smelters' Scrap Buying Prices

(Cents per pound for carload lots del. consumers' works)

	No. 1 Copper Scrap	No. 2 Copper Scrap	Light Copper Scrap	Refinery Brass*
1958				
Oct.	24.80	23.30	21.05	22.30
Nov.	25.597	24.097	21.847	23.097
Dec.	24.356	22.856	20.606	21.856
Aver.	21.788	20.282	18.035	18.047
1959				
Jan.	25.29	23.79	21.54	22.79
Feb.	26.42	24.92	22.67	24.11
Mar.	28.79	27.29	25.04	26.79
Apr.	28.04	26.50	24.29	26.04
May	27.81	26.31	24.06	25.81
June	26.80	25.30	23.05	24.80
July	25.14	23.64	21.39	23.14
Aug.	25.762	24.762	22.012	23.762
Sept.	26.369	24.869	22.319	24.369
Oct.	27.929	25.405	23.155	24.905
Nov.	30.00	26.208	23.958	24.528
Dec.	29.50	25.993	23.743	24.239
Av.	27.321	25.377	23.102	24.774

*Of dry content for material having a dry copper content in excess of 60%.

Brass Ingot Makers' Scrap Copper Buying Prices

(Average Prices)
(Cents per pound del. refinery for 60,000 lbs. of each grade)

	No. 1 Copper Scrap	No. 2 Copper Scrap	No. 1 Composition	Heavy Yellow Brass
1958				
Nov.	25.597	24.097	20.182	14.125
Dec.	24.356	22.856	19.038	13.038
Aver.	21.777	20.277	18.653	13.024
1959				
Jan.	25.29	23.79	19.70	13.982
Feb.	26.42	24.92	21.08	15.08
Mar.	28.79	27.29	22.85	16.85
Apr.	28.04	26.54	21.69	15.70
May	27.81	26.31	21.17	15.17
June	26.80	25.30	21.159	15.307
July	25.14	23.64	20.13	14.47
Aug.	25.762	24.262	21.286	14.81
Sept.	26.369	24.869	22.304	16.50
Oct.	27.595	25.405	22.19	16.048
Nov.	29.00	26.208	22.75	16.326
Dec.	28.50	25.993	22.50	16.00
Av.	27.120	25.377	21.567	15.52

METALS, JANUARY, 1960

Lead Statistics Reported by American Bureau of Metal Statistics

Lead Refineries in U. S. A. and Outside U. S. A.

(Recoverable Lead Content in Tons of 2,000 Pounds)

Combined U. S. A. and Outside U. S. A.

	REFINED PRODUCTION			DELIVERIES			STOCKS		
	Pig	Antimonial Lead Content	Total	Pig	Antimonial Lead Content	Total	Pig	Antimonial Lead Content	Total
1958									
Total ..	1,485,282	106,383	1,591,665	1,307,390	102,697	1,410,087	.....	.....	.....
1959									
Feb. ..	114,528	8,944	123,472	90,915	9,094	100,009	347,455	20,824	368,279
Mar. ..	123,549	8,747	132,296	118,050	9,403	127,453	362,493	20,168	382,661
Apr. ..	127,995	10,398	138,393	146,409	10,345	156,754	334,178	20,221	354,399
May ..	130,046	10,216	140,262	144,988	8,566	153,554	310,042	21,871	331,913
June ..	130,142	10,960	141,102	146,505	12,894	159,399	285,489	19,938	305,427
July ..	113,394	8,721	122,115	97,008	7,879	104,887	300,674	20,780	321,454
Aug. ..	105,433	7,094	112,527	114,715	11,517	126,232	290,832	16,357	307,189
Sept. ..	98,966	4,751	103,717	101,415	5,154	106,569	288,383	15,954	304,337
Oct. ..	101,159	8,583	109,742	112,940	8,808	121,748	276,602	15,729	292,331
Nov. ..	110,295	9,330	119,625	117,420	8,885	126,305	269,477	16,174	285,651

U. S. A.

1958									
Total ..	473,208	46,985	520,193	589,528	49,893	639,421	.....	.....	.....
1959									
Feb. ..	35,084	4,145	39,229	40,881	4,073	44,954	254,229	12,961	267,190
Mar. ..	35,140	3,868	39,008	49,742	4,279	54,021	248,166	12,744	260,910
Apr. ..	35,072	5,167	40,239	60,312	5,072	65,384	234,187	13,578	247,765
May ..	34,483	4,359	38,842	78,398	4,598	82,996	209,558	13,950	223,508
June ..	31,786	5,296	37,082	75,563	7,122	82,685	177,603	12,424	190,027
July ..	30,098	2,646	32,744	31,991	2,153	34,144	187,526	13,082	200,608
Aug. ..	23,404	2,091	25,495	55,094	7,397	62,491	174,959	7,979	182,938
Sept. ..	14,699	88	14,787	37,310	543	37,853	163,467	7,727	171,194
Oct. ..	18,096	697	18,793	35,110	2,290	37,400	167,969	8,150	176,119
Nov. ..	17,785	854	18,639	42,000	2,038	44,038	158,009	7,602	165,611

Outside U. S. A.

1958									
Total ..	1,012,074	59,398	1,071,472	717,862	52,804	770,666	.....	.....	.....
1959									
Feb. ..	79,444	4,799	84,243	50,034	5,021	55,055	93,226	7,863	101,089
Mar. ..	88,409	4,879	93,288	68,308	5,124	73,432	114,327	7,424	121,751
Apr. ..	92,923	5,231	98,154	86,097	5,273	91,370	99,991	6,643	106,634
May ..	95,563	5,857	101,420	66,590	3,968	70,558	100,484	7,921	108,405
June ..	98,356	5,664	104,020	70,942	5,772	76,714	107,886	7,514	115,400
July ..	83,296	6,075	89,391	65,017	5,726	70,743	113,148	7,698	120,846
Aug. ..	82,029	5,003	87,032	59,621	4,120	63,741	115,873	8,378	120,846
Sept. ..	84,267	4,663	88,930	64,105	4,611	68,716	124,916	8,227	133,143
Oct. ..	83,063	7,886	90,949	77,830	6,518	84,348	108,633	7,579	116,212
Nov. ..	92,510	8,476	100,986	75,420	6,847	82,267	111,468	8,572	120,040

Summary of Lead Statistics for United States

Recoverable Lead Content in Tons of 2000 Pounds	Raw Material at Smelter	Base Bullion			Total	Smelter Receipts			Total
		At Smelter & Transit	At Refinery and Process	Refined Pig and Antimonial		U.S.A.	Outside U.S.A.	Scrap	
1958									
December ..	68,197	4,489	28,955	252,466	354,107	25,544	18,921	4,090	43,555
Total .....	.....	.....	.....	.....	.....	297,687	191,415	29,080	518,182
1959									
January ...	69,015	4,243	31,577	257,296	362,131	24,931	19,185	3,167	47,283
February ..	58,921	2,919	35,062	267,190	364,092	22,934	8,435	1,772	33,141
March	65,478	4,283	33,815	260,910	364,486	22,258	21,368	1,426	45,052
April	61,779	4,424	31,596	247,765	345,564	22,868	11,344	1,214	35,426
May	52,115	3,370	32,693	223,508	311,686	22,072	5,330	2,008	29,410
June	55,472	7,454	27,020	190,027	279,973	24,610	12,690	2,444	39,744
July	51,091	7,009	31,461	200,608	290,169	20,029	11,799	2,065	33,893
August	49,262	9,637	24,994	182,938	266,831	20,958	2,703	1,428	25,089
September ..	61,420	9,609	29,012	171,194	271,235	13,725	11,675	753	26,153
October	66,942	7,285	24,758	176,119	275,194	15,837	4,959	1,049	21,845
November ...	70,376	3,617	27,335	165,611	266,939	13,956	5,599	649	20,204
1958									
December	39,972			39,504	4,307	43,811	31,869	3,737	35,606
Total	512,323			473,208	46,985	520,193	589,528	49,893	639,421
1959									
January	45,938			40,110	3,365	43,475	48,311	4,492	52,803
February	40,655			35,084	4,145	39,229	40,881	4,073	44,954
March	38,138			35,140	3,868	39,008	49,742	4,279	54,021
April	38,614			35,072	5,167	40,239	60,312	5,072	65,384
May	38,722			34,483	4,359	38,842	78,398	4,598	82,996
June	35,807			31,786	5,296	37,082	75,563	7,122	82,685
July	37,328			30,098	2,646	32,744	31,991	2,153	34,144
August	26,698			23,404	2,091	25,495	55,094	7,397	62,491
September ..	13,995			14,699	88	14,787	37,310	543	37,853
October	16,315			18,096	697	18,793	35,110	2,290	37,400
November ...	16,770			17,785	854	18,639	42,000	2,038	44,038

United States Lead Statistics of Primary Refineries

(American Bureau of Metal Statistics)
(In tons of 2,000 lbs.)

	Stock At Beginning	Production: Primary & Secondary	Total Supply	Stock At End	Domestic Shipments
1954	81,152	551,618	632,770	92,719	475,551
1955	28,855	547,153	639,872	31,089	531,339
1956		613,293	644,382		529,484
1957		604,353	645,534		463,060
1958					
April	128,754	40,984	169,738	143,136	22,172
May	143,136	47,487	190,623	155,121	30,021
June	155,121	44,636	199,757	163,504	32,078
July	163,504	38,827	202,331	164,860	31,948
August	164,860	39,520	204,380	169,302	34,254
September	169,302	43,269	212,571	170,666	41,657
October	170,666	45,467	216,133	169,435	46,647
November	169,435	40,485	209,920	179,321	30,591
December	179,321	44,042	223,363	198,538	24,852
Total		522,956	614,554		380,359
1959					
January	198,508	43,652	242,160	208,874	33,035
February	208,874	39,498	248,372	214,946	30,685
March	214,946	39,238	254,184	210,524	40,980
April	210,524	40,606	251,130	197,823	52,469
May	197,823	39,101	236,924	171,577	65,207
June	171,577	37,459	209,036	133,235	75,465
July	133,235	32,882	166,117	142,694	22,380
August	142,694	25,589	168,283	124,259	43,850
September	124,259	14,801	139,060	117,296	21,795
October	117,296	18,892	136,188	115,418	20,552
November	115,418	18,796	134,214	114,303	19,869
December	114,303	30,160	144,463	119,993	24,516
Total		380,674	579,182		450,983

In instances where the figures are not in balance it is due to shipments to other than domestic consumers.

Industrial Classification of Domestic Lead Shipments

(American Bureau of Metal Statistics)

(In tons of 2,000 lbs.)

	Cable	Amm.	Foil	Batt'y	Brass Making	Sundries	Jobbers	Unclassified
1955								
Total	72,418	27,599	2,622	88,461	3,960	52,994	13,034	270,251
1956								
Total	80,360	24,501	1,435	70,614	3,158	56,851	13,213	274,716
1957								
June	3,726	2,250	75	3,762	666	5,071	1,087	20,620
July	5,249	1,650	105	5,332	566	5,310	1,110	19,260
Aug.	5,406	2,250	220	6,165	650	6,246	1,403	27,066
Sept.	4,880	2,700	295	6,722	850	5,782	891	29,739
Oct.	3,671	3,300	205	5,973	881	4,203	847	21,367
Nov.	2,950	2,500	85	3,126	493	3,800	706	18,533
Dec.	2,499	1,350	36	2,820	270	2,607	529	13,997
Total	58,444	25,452	1,691	64,761	7,420	53,284	11,127	240,881
1958								
Jan.	2,938	550	70	4,775	521	5,173	801	18,594
Feb.	2,899	1,750	70	5,124	90	1,643	888	11,368
Mar.	3,133	1,200	35	4,711	681	3,149	908	15,068
April	3,207	900	70	3,138	580	2,831	533	10,913
May	3,216	1,850	35	4,671	866	3,071	1,027	15,285
June	3,463	1,950	35	2,767	480	4,217	1,716	17,450
July	3,169	1,250	275	3,936	515	4,157	1,052	17,594
Aug.	3,481	2,415	70	4,992	400	6,399	100	16,397
Sept.	4,132	2,290	320	5,775	848	6,771	1,747	19,774
Oct.	3,243	2,450	...	4,548	285	6,210	1,641	28,270
Nov.	3,690	2,150	50	6,527	360	4,887	822	12,105
Dec.	2,267	2,100	50	6,216	215	2,578	652	10,774
Total	38,838	20,855	1,080	57,180	5,841	51,086	11,882	193,592
1959								
Jan.	2,284	2,100	100	5,594	161	3,545	727	18,524
Feb.	2,988	1,225	50	5,254	735	2,706	931	16,796
Mar.	3,156	1,850	105	5,905	378	6,006	2,185	21,395
April	3,686	2,150	35	7,410	691	5,356	1,966	31,355
May	4,054	2,900	35	6,870	475	7,990	2,843	40,040
June	5,272	3,210	70	12,515	180	8,009	3,663	42,546
July	850	295	70	2,570	315	3,166	997	14,117
Aug.	3,268	1,150	205	3,073	410	6,640	1,921	27,183
Sept.	1,003	...	35	3,401	255	2,296	1,484	13,321
Oct.	700	500	35	4,299	228	2,676	1,021	11,093
Nov.	2,630	200	70	3,714	205	2,566	797	9,687
Dec.	2,133	250	70	3,479	475	2,628	738	14,043
Total	32,024	16,530	880	64,084	4,508	53,584	19,273	260,100

Lead Prices at New York

(Common Grade)
Monthly Average Prices
(Cents per pound)

	1956	1957	1958	1959
Jan.	16.16	16.00	13.00	12.619
Feb.	16.00	16.00	13.00	11.583
Mar.	16.00	16.00	13.00	11.42
Apr.	16.00	16.00	12.00	11.20
May	16.00	15.385	11.712	11.905
June	16.00	14.32	11.24	12.00
July	16.00	14.00	11.00	12.00
Aug.	16.00	14.00	10.85	12.286
Sept.	16.00	14.00	10.89	13.00
Oct.	16.00	13.704	12.673	13.00
Nov.	16.00	13.50	13.00	13.00
Dec.	16.00	13.00	13.00	12.523
Aver.	16.013	14.66	12.114	12.211

Lead Sheet Prices

(To Jobbers, Full Sheets)
Monthly Average Prices
(Cents per pound)

	1956	1957	1958	1959
Jan.	21.66	21.50	18.50	18.119
Feb.	21.50	21.50	18.50	17.083
Mar.	21.50	21.50	18.50	16.92
Apr.	21.50	21.50	17.50	16.70
May	21.50	20.885	17.212	17.405
June	21.50	19.82	16.74	17.50
July	21.50	19.82	16.50	17.50
Aug.	21.50	19.50	16.35	17.786
Sept.	21.50	19.50	16.39	18.50
Oct.	21.50	19.204	18.173	18.50
Nov.	21.50	19.00	18.50	18.50
Dec.	21.50	18.50	18.50	18.023

Battery Shipments

The following table shows replacement battery shipments in the United States as compiled by the Business Information Division of Dun & Bradstreet, Inc., for the Association of American Battery Manufacturers:

(In thousands of units)

	1956	1957	1958	1959
Jan. . .	2,058	2,638	2,004	2,672
Feb. . .	1,340	1,961	1,803	1,791
Mar. . .	1,348	1,254	1,577	1,376
Apr. . .	1,368	1,178	1,242	1,439
May . .	1,761	1,605	1,454	1,593
June . .	1,807	1,878	1,773	2,116
July . .	2,178	2,469	2,101	2,556
Aug. . .	2,571	2,856	2,333	2,728
Sept. .	2,711	2,688	2,704	2,889
Oct. . .	3,015	3,042	2,976	3,069
Nov. . .	2,592	2,359	2,262	2,793
Dec. . .	2,265	2,015	3,036	....
Total	25,014	25,943	25,265	....

METALS, JANUARY, 1960

Lead Stocks at Primary U. S. Smelters and Refiners

(American Bureau of Metal Statistics)
(In tons of 2,000 lbs.)

	In ore and matte and in process at smelters	—In base bullion (lead content)— At smelters & refineries	In transit to refineries	In process at refineries	Refined pig lead	Anti- monial lead	Total Stocks
1957							
Sept. 1.	84,205	13,029	2,667	22,439	51,080	9,553	182,973
Oct. 1.	80,662	11,905	3,175	20,351	44,467	10,215	170,775
Nov. 1.	76,230	14,220	2,538	18,695	47,460	11,581	170,724
Dec. 1.	65,341	11,646	3,547	21,867	59,755	11,119	173,275
1958							
Jan. 1.	79,362	11,019	2,779	23,154	79,741	11,857	207,912
Feb. 1.	79,738	11,510	3,678	24,535	88,517	12,689	220,667
Mar. 1.	79,588	9,546	3,670	22,834	107,213	12,309	235,250
Apr. 1.	83,185	10,692	2,187	21,766	116,610	12,144	246,584
May 1.	86,053	11,838	2,138	20,524	130,668	12,468	263,689
June 1.	79,482	11,059	2,010	20,188	141,967	13,154	267,860
July 1.	80,060	9,012	1,570	22,092	150,648	12,856	276,238
Aug. 1.	83,347	12,438	860	21,615	154,378	10,482	283,379
Sept. 1.	77,416	14,767	1,176	20,444	158,413	10,889	283,105
Oct. 1.	72,724	14,797	2,223	18,125	159,662	11,004	278,535
Nov. 1.	61,819	11,492	1,086	19,041	157,385	12,050	262,873
Dec. 1.	62,960	11,072	1,565	20,941	167,493	11,828	275,859
1959							
Jan. 1.	72,378	10,917	1,767	19,746	185,913	12,595	303,316
Feb. 1.	72,832	10,565	1,889	21,317	197,085	11,789	315,477
Mar. 1.	62,383	11,707	1,447	21,479	202,835	12,111	311,962
Apr. 1.	68,433	14,352	350	20,575	198,459	12,065	314,234
May 1.	64,538	12,373	624	20,507	184,468	13,355	295,865
June 1.	55,223	12,239	766	20,391	157,981	13,596	260,196
July 1.	58,451	13,270	943	19,468	120,914	12,321	225,367
Aug. 1.	53,115	18,379	158	18,021	129,551	13,143	232,367
Sept. 1.	50,007	17,389	....	15,638	116,344	7,915	207,293
Oct. 1.	61,910	17,925	....	14,932	109,527	7,769	212,063
Nov. 1.	69,429	14,800	....	14,919	107,849	7,569	214,566

Receipts of Lead in Ore and Scrap

By U. S. Smelters (a)

(American Bureau of Metal Statistics)

(In tons of 2,000 lbs.)

	Receipts of lead in ore—			Receipts of lead in scrap etc. (b)	Total receipts in ore, & scrap
	United States	Foreign	Total		
1953 Total	351,183	155,788	506,971	42,994	549,965
1954 Total	336,291	158,081	494,372	49,864	544,236
1955 Total	341,595	172,966	514,561	42,996	557,557
1956					
Total	368,499	192,318	560,817	55,925	616,792
1957					
September	26,479	13,757	40,236	4,375	44,611
October	29,342	13,782	43,124	4,386	47,510
November	25,809	17,251	43,060	3,258	46,318
December	27,105	26,610	53,715	3,791	57,506
Total	356,409	206,901	563,310	42,537	605,847
1958					
January	25,537	22,097	47,634	3,507	51,141
February	23,789	16,400	40,189	2,184	42,373
March	21,735	20,038	41,773	3,154	44,927
April	25,104	15,821	40,925	1,913	42,838
May	27,427	10,228	37,655	1,867	39,522
June	28,577	13,811	42,388	1,366	43,754
July	22,289	19,692	41,981	1,615	43,596
August	22,984	13,043	36,027	1,252	37,279
September	20,654	14,576	35,230	1,765	36,995
October	18,678	9,093	27,771	3,577	31,348
November	24,024	14,541	38,565	3,933	42,498
December	24,366	18,804	43,170	3,982	47,152
Total	285,164	188,144	473,308	30,115	503,423
1959					
January	24,304	19,449	43,753	3,138	46,891
February	22,253	8,660	30,913	1,747	32,660
March	21,897	21,012	42,909	1,328	44,237
April	22,339	10,998	33,337	1,196	34,533
May	21,645	5,202	26,847	1,930	28,777
June	23,634	12,368	36,002	2,431	38,433
July	19,165	11,695	30,860	2,199	33,059
August	19,971	2,821	22,792	1,009	23,801
September	13,591	3,465	17,056	32	17,088
October	14,740	3,648	18,388	133	18,521

(a) Receipts of lead in ore are computed on the basis of recoverable lead. Owing to the estimational factor in this, which is probably on the low side, and also to the possibility that some lead receipts may escape attention, these monthly totals probably underrun the actual production of pig lead. (b) Inclusive only of scrap smelted in connection with ore, plus some scrap received by primary refiners.

Metals, January, 1960

N. Y. Lead Price Changes

(Effective Date)

1951	Apr. 12....14.00
Oct. 2..**19.00	June 2....14.25
1952	June 15....14.00
Apr. 29....18.00	Aug. 25....14.25
May 2....17.00	Sept. 7....14.50
May 12....15.00	Sept. 15....14.75
June 23....15.50	Oct. 4....14.875
June 24....16.00	Oct. 5....15.00
Oct. 7....15.00	1955
Oct. 14....14.00	Sept. 23....15.00-
Oct. 22....13.50	15.50
Nov. 3....14.00	Sept. 26....15.50
Nov. 10....14.20	Dec. 29....16.00
Nov. 11....14.50	1956
Nov. 20....14.25	Jan. 4....16.50
Nov. 24....14.00	Jan. 13....16.00
Dec. 22....14.25	1957
Dec. 29....14.50	May 9....15.50
Dec. 31....14.75	May 16....15.00
1958	June 11....14.00
Jan. 7....14.50	Oct. 14....13.50
Jan. 12....14.00	Dec. 2....13.00
Feb. 2....13.50	1958
Mar. 4....13.00	Apr. 1....12.00
Mar. 10....13.50	May 14....11.50
Apr. 7....13.00	June 3....11.00
Apr. 16....12.50	June 18....11.50
Apr. 21....12.00	July 1....11.00
Apr. 29....12.50	Aug. 13....10.75
May 18....12.75	Sept. 17....11.00
May 19....13.00	Sept. 30....11.50
May 26....13.15	Oct. 2....12.00
June 11....13.50	Oct. 8....12.50
July 20....13.75	Oct. 14....13.00
July 23....14.00	1959
Sept. 16....13.50	Jan. 21....12.00
1954	Feb. 11....11.50
Jan. 18....13.00	Feb. 24....11.00
Feb. 18....12.50	Mar. 5....11.50
Mar. 9....12.75	Apr. 1....11.00
Mar. 10....13.00	Apr. 20....11.50
Mar. 26....13.25	May 7....12.00
Mar. 29....13.50	Aug. 24....13.00
Apr. 1....13.75	Dec. 14....12.50
	Dec. 21....12.00

**OPS Ceiling.

Antimonial Lead Stocks at Primary Refineries

(A.B.M.S.)

End of	1956	1957	1958	1959
Jan. ..	8,389	10,487	12,689	11,789
Feb. ..	9,095	10,220	12,309	12,111
Mar. ..	10,289	9,794	12,144	12,065
Apr. ..	10,690	9,391	12,468	13,355
May ..	10,902	9,799	13,154	13,596
June ..	9,452	9,503	12,856	12,321
July ..	10,924	8,661	10,482	13,143
Aug. ..	10,074	9,553	10,889	7,915
Sept. ..	11,181	10,215	11,004	7,769
Oct. ..	11,382	11,581	12,050	7,569
Nov. ..	11,832	11,119	11,828	7,625
Dec. ..	11,746	11,857	12,595	11,991

Antimonial Lead Production by Primary Refineries

(A.B.M.S.)

End of	1956	1957	1958	1959
Jan. ..	5,045	5,113	3,743	3,541
Feb. ..	5,888	5,468	3,657	4,415
Mar. ..	5,526	5,091	3,527	4,098
Apr. ..	5,818	6,183	3,655	5,533
May ..	5,405	6,978	4,827	4,618
June ..	4,456	4,466	3,992	5,671
July ..	3,853	5,372	2,775	2,784
Aug. ..	5,343	7,967	5,244	2,185
Sept. ..	6,709	7,574	4,761	102
Oct. ..	5,378	6,148	5,849	886
Nov. ..	6,993	3,791	3,913	1,324
Dec. ..	5,766	3,290	4,539	2,656

Total 66,180 67,541 50,482 37,813

Lead Imports and Exports By Principal Countries

(A.B.M.S.)

Reported in pigs, bars, etc.; metric tons
except where otherwise noted.

	1959		
	Aug.	Sept.	Oct.
IMPORTS			
U. S.* (s.t.)	19,074	16,623	18,762
Belgium	1,338	947	...
Denmark	1,657	2,065	2,679
France	3,853	4,020	5,070
Germany, West†	5,552	5,730	...
Italy**	945	...	...
Netherlands	2,372	3,456	3,737
Norway	356	...	...
Sweden	733	1,009	...
Switzerland	1,189	1,391	936
U. K. (l.t.)	9,364	11,829	10,903
India† (l.t.)	711	1,854	...
EXPORTS			
U. S.* (s.t.)	1,418	19	39
Canada (s.t.)	4,024	3,895	4,884
Belgium	3,066	6,890	...
Denmark	613	713	1,177
France	26	117	200
Germany, West†	1,737	2,650	...
Netherlands	258	755	491
Sweden	3,186	2,329	...
Switzerland	...	...	2
Northern Rhodesia† (l.t.)	1,927	981	769
Australia (l.t.)	9,235	9,721	12,136

* Refined.

** Includes lead alloys.

† British Bureau of Non-Ferrous Metal Statistics.

‡ Includes scrap.

French Lead Imports

(A.B.M.S.)

(In metric tons)

	1959		
	Sept.	Oct.	Nov.
Ore (gross weight)	5,781	10,152	3,459
Algeria	...	...	450
Morocco	5,781	8,652	2,509
Fr. Eq. Africa	...	1,500	500
Pig lead	4,020	5,070	3,129
Belgium	1,042	1,048	1,084
Germany (W.)	201	...	...
Algeria	6	...	...
Morocco	1,365	2,611	1,340
Tunisia	1,126	1,411	705
Australia	280	...	...
Antimonial lead	31	16	53

U. K. Lead Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	1959		
	Sept.	Oct.	Nov.
(Gross Weight)			
Lead and lead alloys	11,829	10,903	7,551
Australia	10,022	7,518	3,423
Canada	1,278	2,590	2,379
Yugoslavia	...	...	400
Peru	...	100	100
Other countries	529	695	1,249

IT PAYS
to
ADVERTISE
in the

DAILY METAL REPORTER

U. S. Lead Consumption

(Bureau of Mines — In Short Tons)

1959

Metal Products:	Jan.-Oct. totals	Sept.	Oct.
Ammunition	37,982	4,130	4,202
Bearing metals	19,032	1,966	2,050
Brass and bronze	20,176	2,016	1,981
Cable covering	51,004	5,027	4,854
Calking lead	66,282	6,690	6,546
Casting metals	6,308	593	663
Collapsible tubes	7,421	856	865
Foil	3,094	252	251
Pipes, traps and bends	19,066	1,928	1,976
Sheet lead	23,237	1,954	2,404
Solder	57,065	5,948	5,015
Storage battery grids, posts, etc.	151,955	15,654	17,680
Storage battery oxides	149,563	16,207	17,039
Terne metal	1,415	55	60
Type metal	21,942	2,042	2,267
Total	635,542	65,308	67,853

Pigments:	Sept.	Oct.
White lead	9,875	1,029
Red lead and litharge	68,678	6,738
Pigment colors	11,532	1,221
Other*	3,684	370
Total	93,769	9,358

Chemicals:	Sept.	Oct.
Tetraethyl lead	135,978	14,108
Misc. chemicals	3,244	500
Total	139,222	14,608

Miscellaneous uses:	Sept.	Oct.
Annealing	3,345	138
Galvanizing	769	13
Lead plating	148	9
Weights and ballast	6,057	904
Total	10,319	1,064

Other uses unclassified	Sept.	Oct.
	14,022	1,556
Total reported†	892,874	91,894

Estimated unreported consumption	Sept.	Oct.
	20,000	2,000
Grand total‡	912,900	93,900

Daily average‡	Sept.	Oct.
	2,601	3,130

	Sept.	Oct.
	2,601	3,130

* Includes lead content of leaded zinc oxide production.

† Includes lead content of scrap used directly in fabricated products.

‡ Based on number of days in month without adjustment for Sundays and holidays.

Consumers' Lead Stocks, Receipts and Consumption

(Bureau of Mines — In Short Tons)

	Stocks Sept. 30, 1959	Net Receipts in Oct.	Consumed in Oct.	Stocks Oct. 31, 1959
Soft lead	102,041	52,316	64,303	90,055
Antimonial lead	36,918	22,462	23,708	35,672
Lead in alloys	7,209	2,761	3,410	6,560
Lead in copper-base scrap	1,140	1,441	1,555	1,026
Total	147,308	78,980	*92,976	133,313

* Excludes 3,115 tons of lead which went directly from scrap to fabricated products and 349 tons of lead contained in leaded zinc oxide production.

Consumption of Lead by Class of Product

(Bureau of Mines — In Short Tons)

OCTOBER

	Soft lead	Antimonial lead	Lead in alloys	Lead in copper-base scrap	Total
Metal products	36,844	22,957	3,382	1,555	64,738
Pigments	9,577	26	...	...	9,603
Chemicals	16,040	1	...	...	16,041
Miscellaneous	272	597	...	...	869
Unclassified	1,570	127	28	...	1,725
Total	64,303	23,708	3,410	1,555	*92,976

* Excludes 3,115 tons of lead which went directly from scrap to fabricated products and 349 tons of lead contained in leaded zinc oxide production.

U. K. Lead Consumption

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 pounds)

	1957	1958	1959
Jan.	29,657	29,607	28,872
Feb.	29,219	27,855	25,968
Mar.	29,144	29,713	26,691
Apr.	27,246	26,230	29,252
May	31,574	28,839	27,280
June	28,607	28,624	30,099
July	27,604	27,201	26,851
Aug.	24,756	21,726	25,358
Sept.	29,519	28,829	30,255
Oct.	32,486	31,356	32,926
Nov.	31,060	28,786	32,579
Dec.	26,530	27,154	...

Total 347,699 335,920

American Antimony

Monthly Average Prices
In bulk, f.o.b. Laredo
(Cents per lb. in ton lots)

	1956	1957	1958	1959
Jan.	33.00	33.00	33.00	29.00
Feb.	33.00	33.00	30.818	29.00
Mar.	33.00	33.00	29.00	29.00
Apr.	33.00	33.00	29.00	29.00
May	33.00	33.00	29.00	29.00
June	33.00	33.00	29.00	29.00
July	33.00	33.00	29.00	29.00
Aug.	33.00	33.00	29.00	29.00
Sept.	33.00	33.00	29.00	29.00
Oct.	33.00	33.00	29.00	29.00
Nov.	33.00	33.00	29.00	29.00
Dec.	33.00	33.00	29.00	29.00
Aver.	33.00	33.00	29.485	29.00

Domestic Zinc Statistics

American Zinc Institute

Commencing with January, 1948, all regularly operating U. S. primary and secondary smelters are included in this report. Production from foreign ores also is included.
(Tons of 2,000 lbs.)

	Stock Beginning	Pro- duction	Domestic Shipments	Export & Drawback	Gov't Acct	Total	Stock at End	Daily Avg. Prod.
1950 Total	94,221	210,354	848,246	18,189	128,258	995,691	8,584	2,494
1950 Mo. Avg.		75,863	70,770	1,516	39,949	82,974		
1951 Total	8,884	931,833	836,800	42,067	39,949	918,816	21,901	2,553
1951 Mo. Avg.		77,653	69,733	3,506	3,329	76,568		
1952 Total	21,901	961,430	803,343	56,202	36,626	896,171	87,160	2,627
1952 Mo. Avg.		80,119	66,945	4,633	3,052	74,681		
1953 Total	87,160	971,191	818,860	16,326	42,332	877,508	180,843	2,661
1953 Mo. Avg.		80,933	68,238	1,361	3,528	73,126		
1954 Total	180,843	868,242	787,922	27,929	108,957	924,808	124,277	2,379
1954 Mo. Avg.		72,353	65,660	2,327	9,080	77,067		
1955 Total	40,979	1,031,018	1,007,619	19,497	87,200	1,114,316	40,979	2,825
1955 Mo. Avg.		85,918	83,968	1,625	7,267	92,860		
1956 Total		1,062,964	869,270	9,027	157,014	1,035,311	68,622	2,904
1956 Mo. Avg.		88,560	72,439	752	13,085	86,275		
1957								
November	155,925	79,754	73,437	581	9,148	83,166	152,531	2,658
December	162,531	86,270	62,730	210	9,188	72,128	166,555	2,783
1957 Total		1,067,460	765,132	15,460	179,466	815,567		
1958								
January	166,655	82,343	58,211	641	9,805	68,657	180,346	2,656
February	180,346	83,354	49,072	446	9,993	59,511	189,189	2,441
March	189,189	72,274	48,948	111	8,763	57,822	203,641	2,331
April	203,641	70,214	45,598	159	5,927	52,684	221,171	2,340
May	221,171	71,018	51,390	129	....	51,519	240,670	2,291
June	240,670	66,967	54,487	171	....	54,658	252,979	2,232
July	252,979	65,119	60,312	55	....	60,187	257,911	2,101
August	257,911	62,927	68,718	591	....	69,309	251,529	2,030
September	251,529	63,705	76,905	213	....	77,118	238,116	2,124
October	238,116	65,304	93,018	226	....	93,224	210,176	2,107
November	210,176	65,174	83,394	212	....	83,606	191,744	2,172
December	191,744	76,503	76,503	148	....	77,010	190,237	2,432
1958 Total		828,902	767,755	3,102	34,488	806,325		
1959								
January	190,237	76,481	70,770	171	....	70,941	195,777	2,467
February	195,777	71,174	65,641	849	....	66,490	200,461	2,542
March	200,461	79,918	73,814	482	....	74,296	206,083	2,578
April	206,083	76,393	75,358	255	....	78,613	203,863	2,546
May	203,863	77,489	85,979	275	....	85,348	196,004	2,500
June	196,004	75,544	99,858*	204	2,100	102,162	169,586	2,518
July	169,586	73,101	59,460	94	900	60,454	182,033	2,358
August	182,033	69,768	58,918	884	....	59,782	192,019	2,251
September	192,019	62,202	57,971	3,214	....	61,185	193,036	2,073
October	193,036	63,938	65,910	1,813	....	65,723	191,251	2,063
November	191,251	62,346	74,596	2,844	....	77,440	176,157	2,078
December	176,157	69,666	6,906	....	....	71,408	154,419	2,247
1959 Total		858,020	872,867	17,971	8,090	893,838		

* Inflated by abnormal shipments on consignment of approximately 9,000 tons.

U. S. Consumption of Slab Zinc

Bureau of Mines

By Industries (Short Tons)

	Galvan- izers	Die Casters	Brass products	Rolled zinc	Zinc oxide & other	Total
1950 Total	434,094	281,385	136,451	67,779	27,656	947,365
1951 Total	386,373	266,442	141,456	64,000	28,738	887,009
1952 Total	375,563	236,022	155,311	51,508	30,885	849,289
1953 Total	403,162	305,846	177,301	53,784	38,037	977,636
1954 Total	398,599	286,817	107,293	45,979	33,342	876,130
1955 Total	439,694	404,790	144,816	50,363	39,302	1,081,468
1956 Total	421,218	352,451	122,395	45,382	36,251	983,097
1957						
September	28,651	31,051	9,588	2,911	1,590	75,976
October	32,940	35,499	10,952	3,385	1,783	87,898
November	28,025	31,396	10,024	2,843	1,255	76,595
December	24,383	27,927	7,854	2,679	1,427	67,421
Total	355,796	358,543	111,114	39,544	20,486	924,063
1958						
January	26,861	26,348	9,115	3,183	1,664	69,295
February	24,598	22,629	7,279	2,716	1,316	60,347
March	27,171	19,045	6,871	3,138	1,724	59,978
April	27,464	17,829	6,392	3,259	1,295	58,432
May	30,935	18,316	6,597	2,896	2,263	61,907
June	34,377	21,497	6,643	2,961	2,212	67,690
July	30,677	17,387	6,275	2,848	1,920	60,007
August	34,663	20,362	8,358	3,379	1,901	70,033
September	34,048	25,188	9,624	3,458	770	74,122
October	36,513	27,682	11,753	3,845	881	81,919
November	31,658	27,311	10,067	3,276	826	74,302
December	31,746	29,926	10,529	3,681	1,018	78,082
Total	370,441	273,540	92,906	38,690	16,772	737,942
1959						
January	31,729	29,110	11,172	3,874	2,521	79,506
February	31,672	26,448	11,508	3,418	2,864	77,010
March	37,287	29,286	12,889	3,629	3,203	87,394
April	38,541	31,262	12,304	3,715	3,223	90,145
May	38,788	29,169	12,015	3,316	3,305	88,093
June	40,531	36,269	10,764	3,801	3,120	95,985
July	23,700	28,120	7,558	2,509	2,042	65,429
August	13,763	29,803	10,064	3,160	2,161	60,451
September	13,181	31,463	10,842	3,322	2,237	62,545
October	13,582	35,473	10,543	3,272	2,487	66,857

METALS, JANUARY, 1960

Prime Western Zinc Prices (East St. Louis, f.o.b.)

	(Cents per pound) (In tons of 2,240 pounds)			
	1956	1957	1958	1959
Jan.	13.46	13.50	10.00	11.50
Feb.	13.50	13.50	10.00	11.411
Mar.	13.50	13.50	10.00	11.00
Apr.	13.50	13.50	10.00	11.00
May	13.50	11.933	10.00	11.00
June	13.50	10.84	10.00	11.00
July	13.50	10.00	10.00	11.00
Aug.	13.50	10.00	10.00	11.00
Sept.	13.50	10.00	10.00	11.381
Oct.	13.50	10.00	10.865	12.233
Nov.	13.50	10.00	11.386	12.50
Dec.	13.50	10.00	11.50	12.50
Aver.	13.497	11.40	10.313	11.46

High Grade Zinc Prices

(Delivered)

N. Y. Monthly Averages

	(Cents per pound)			
	1956	1957	1958	1959
Jan.	14.81	14.85	11.35	12.50
Feb.	14.85	14.85	11.35	12.411
Mar.	14.85	14.85	11.35	12.00
Apr.	14.85	14.85	11.084	12.00
May	14.85	13.283	11.00	12.00
June	14.85	12.19	11.00	12.00
July	14.85	11.35	11.00	12.00
Aug.	14.85	11.35	11.00	12.006
Sept.	14.85	11.35	11.00	12.625
Oct.	14.85	11.35	11.865	13.483
Nov.	14.85	11.35	12.386	13.75
Dec.	14.85	11.35	12.50	13.75
Aver.	14.847	12.75	11.407	12.544

U. K. Zinc Consumption

(British Bureau of Non-Ferrous Metal Statistics)

	(In Tons of 2,240 Pounds)		
	1957	1958	1959
Jan.	28,485	27,473	27,849
Feb.	26,276	24,551	25,676
Mar.	27,049	26,967	27,243
Apr.	24,247	24,984	28,006
May	29,589	24,579	26,167
June	25,202	25,587	30,221
July	25,934	23,794	26,318
Aug.	20,381	19,076	21,566
Sept.	27,792	26,747	31,270
Oct.	29,552	29,838	30,386
Nov.	26,705	26,432	29,221
Dec.	24,419	26,042	....
Total	315,631	306,070	....

IT PAYS
to
ADVERTISE
in the
DAILY METAL REPORTER

Mine Production of Zinc in United States

(U. S. Bureau of Mines)

	(In short tons)			
	Eastern States	Central States	Western States	Total U.S.*
1954 Total	166,487	63,100	234,942	464,539
1955 Total	163,230	73,630	277,811	514,671
1956 Total	175,310	61,080	301,253	537,643
1957 Total	196,877	29,506	290,151	520,128
1958				
Apr.	15,719	1,311	22,375	39,405
May	15,580	1,314	18,940	35,834
June	14,931	1,490	16,650	32,971
July	13,427	—	15,985	29,442
Aug.	15,760	—	13,627	29,387
Sept.	14,857	—	15,279	29,865
Oct.	16,197	—	16,074	32,271
Nov.	15,393	—	16,998	32,391
Dec.	15,064	—	16,939	32,003
Total	181,202	8,450	213,267	402,919
1959				
Jan.	16,319	—	19,117	35,436
Feb.	16,405	—	19,304	35,709
Mar.	17,602	—	18,822	36,424
Apr.	18,521	—	19,149	37,670
May	18,500	—	19,170	37,670
June	17,501	—	18,443	35,944
July	12,697	—	18,686	31,383
Aug.	13,810	140	16,641	30,591
Sept.	13,639	154	14,778	28,571
Oct.	15,368	200	15,030	30,598

*Includes Alaskan output in some months.

Mine Production of Lead in United States

(U. S. Bureau of Mines)

	(In short tons)			
	Eastern States	Central States	Western States	Total U.S.*
1953 Ttl.	9,970	136,650	188,776	335,412
1954 Ttl.	8,608	138,940	169,804	317,352
1955 Ttl.	10,379	145,640	177,409	333,409
1956 Ttl.	11,395	141,900	195,034	348,329
1957 Ttl.	9,300	135,800	188,392	333,493
1958				
May	626	11,660	11,939	24,225
June	615	10,662	11,499	22,776
July	454	10,019	10,662	21,135
Aug.	447	8,859	9,512	18,818
Sept.	389	7,734	11,221	19,344
Oct.	517	9,290	11,467	21,274
Nov.	606	10,500	11,823	22,929
Dec.	565	9,600	11,699	21,865
Ttl.	6,816	119,070	140,033	265,920
1959				
Jan.	469	9,748	13,180	23,397
Feb.	501	8,457	12,392	21,578
Mar.	601	7,943	12,585	21,129
Apr.	454	8,103	12,635	21,192
May	413	7,253	12,427	20,093
June	458	8,185	12,727	21,370
July	369	8,190	10,980	19,539
Aug.	353	9,762	11,533	21,648
Sept.	510	9,698	10,165	20,373
Oct.	548	10,012	10,395	20,955

Mine Production of Gold in United States

(U. S. Bureau of Mines)

	(In fine ounces)		
	Eastern States	Western States	Total
1955 Ttl.	2,026	1,634,625	247,535
1956 Ttl.	1,998	1,607,930	204,300
1957 Ttl.	2,174	1,556,450	210,000
1958			
May	203	124,490	557
June	182	122,277	8,484
July	38	116,775	29,735
Aug.	174	113,281	34,947
Sept.	156	128,613	38,960
Oct.	186	135,882	42,467
Nov.	—	—	—
Dec.	—	—	10,373
1959			
Jan.	—	—	1,003
Feb.	—	—	233
Mar.	—	—	106
Apr.	—	—	106
May	—	—	490
June	—	—	8,882
July	—	—	26,457
Aug.	—	—	33,113
Sept.	—	—	31,974
Oct.	—	—	36,626

* Alaska totals based on mint and smelter receipts.

U. S. Silver Production* (A.B.M.S.)

(In thousands of ounces; commercial bars, 0.999 fine, and other refined forms)

	Dom.†		Total
	For.	Refined	
1954 Total	38,059	39,422	77,481
1955 Total	33,101	32,780	65,881
1956 Total	38,157	40,160	78,317
1957 Total	36,279	34,932	71,211
1958			
April	3,123	3,056	6,179
May	2,597	2,660	5,257
June	3,243	3,210	6,453
July	2,127	2,494	4,621
August	2,651	3,235	5,886
September	2,614	3,165	5,779
October	3,831	2,750	6,581
November	2,505	3,283	5,788
December	3,275	3,652	7,236
Total	35,691	37,572	73,263
1959			
January	2,330	4,460	6,790
February	2,827	2,913	5,740
March	2,823	4,087	6,910
April	2,946	3,233	6,179
May	2,641	3,484	6,125
June	3,219	3,231	6,450
July	2,609	3,284	5,893
August	1,472	1,229	2,701
September	390	577	967
October	510	610	1,120

* The separation between silver of foreign and domestic origin on the basis of refined bars and other refined forms is only approximate.

† Includes purchases of crude silver by the U. S. Mint.

Mine Production of Recoverable Silver in United States

(U. S. Bureau of Mines)

	(In Fine Ounces)			
	Eastern States	Missouri	Western States	Alaska*
1957 Total	610,386	240,000	37,018,950	26,000
1958				
August	8,819	19,970	2,836,937	5,968
September	5,783	17,180	2,621,537	3,392
October	5,653	20,600	2,749,976	5,338
November	†	16,000	†	3,175
December	†	13,730	†	675
Total	†	210,000	†	28,000
1959				
January	†	21,000	†	132
February	†	18,060	†	154
March	†	17,200	†	10
April	†	17,600	†	15
May	†	15,900	†	68
June	†	8,900	†	2,767
July	†	10,600	†	3,940
August	†	17,900	†	927
September	†	8,900	†	2,767
October	†	10,600	†	3,940
November	†	10,400	†	4,093
December	†	10,900	†	1,727

† Figures not available.

* Alaska totals based on mint and smelter receipts.

Production of Primary Aluminum in the U. S.

(U. S. Bureau of Mines)

	(In short tons)							
	1952	1953	1954	1955	1956	1957	1958	1959
Jan.	76,934	89,895	116,247	128,203	140,394	147,029	139,910	156,708
Feb.	72,374	92,649	110,483	116,236	132,763	119,059	121,980	142,116
Mar.	77,069	104,460	122,339	130,272	145,895	135,706	134,019	157,189
Apr.	76,880	102,071	120,434	126,394	144,726	139,152	128,559	155,213
May	80,803	105,464	125,138	131,128	150,800	145,174	129,083	163,857
June	77,476	104,152	120,758	127,634	145,726	138,007	115,325	167,323
July	78,368	109,285	126,161	132,669	151,624	142,157	118,811	179,594
Aug.	85,175	110,545	125,296	133,551	152,406	143,449	125,416	172,817
Sept.	76,882	109,333	120,332	130,606	132,316	129,278	124,713	168,205
Oct.	77,312	108,219	125,089	134,655	149,125	133,759	139,847	173,762
Nov.	74,639	105,636	121,252	133,689	145,081	135,024	140,962	153,666
Dec.	83,419	110,291	127,056	140,748	148,391	140,033	153,301	—
Ttl.	937,330	1,252,013	1,460,565	1,565,721	1,879,427	1,647,710	1,565,556	—

Average Silver Prices

	(Cents per fine ounce)			
	1956	1957	1958	1959
Jan.	90.357	91.375	89.449	90.19
Feb.	90.90	91.375	88.625	90.444
Mar.	91.128	91.375	88.625	91.351
Apr.	90.875	91.375	88.625	91.375
May	90.75	91.307	88.625	91.375
June	90.46	90.456	88.625	91.375
July	90.14	90.31	88.625	91.375
Aug.	90.614	90.909	88.625	91.399
Sept.	90.75	90.602	88.673	91.399
Oct.	90.722	90.625	89.966	91.375
Nov.	91.375	90.382	90.125	91.375
Dec.	91.375	89.80	89.932	91.375
Aver.	90.79	90.824	89.043	91.226

Note — The averages are based on the price of refined bullion imported on or after August 31, 1948.

U. S. Lead Imports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	1959 Sept.	1959 Oct.	1959 Nov.
Ore, matte, etc. (content)	16,436	6,141	13,088
Canada	3,801	1,378	2,285
Mexico	40	16	...
Honduras	554	264	...
Argentina . . . . .	...	...	53
Bolivia	1,118	440	397
Colombia . . . . .	...	...	210
Peru	672	1,234	3,622
U. of S. Africa	6,844	405	3,955
Australia	3,387	2,276	2,508
Philippines	41	13	12
Korea . . . . .	...	...	25
Other countries	9	115	21
Base bullion (content)	25	...	...
Canada	25	...	...
Pigs and bars	16,623	18,762	20,647
Canada	3,208	1,112	1,742
Mexico	5,861	10,647	4,401
Peru	1,884	1,749	2,149
Belgium	1,223	...	...
France . . . . .	...	215	...
Germany (W.)	165	...	...
Netherlands . . . . .	...	50	...
Spain	1,120	369	...
Sweden . . . . .	...	...	560
Yugoslavia . . . . .	...	2,691	5,174
Australia	3,001	1,922	5,918
Other countries	161	7	703*

Total Imports:

Ore, base bullion, refined	33,084	24,903	33,735
Lead scrap, dross, etc. (cont.)	1,323	362	257
Antimonial lead & typemetal	200	449	1,128
Lead content thereof	164	351	1,081

* From Rhodesia.

U. S. Copper Exports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	1959 Sept.	1959 Oct.	1959 Nov.
Ore, conc. matte & other unref. (cont.)	6	...	231
Refined ingots, bars, etc.†	8,965	4,404	2,309
Canada	68	209	202
Mexico . . . . .	...	27	...
Argentina . . . . .	...	198	...
Brazil	180	...	22
Belgium . . . . .	...	85	55
France	416	368	121
Germany (W.)	5,430	1,597	1,229
Italy	677	485	114
Netherlands	336	114	140
Norway	224	...	...
Sweden	112	112	...
Switzerland	112	85	16
U. Kingdom	705	530	174
Yugoslavia	569	569	...
Taiwan	10	...	...
India	67	...	...
Japan	55	24	229
Other countries	4	1	7

Total Exports:

Crude & refined	8,971	4,404	2,540
Pipes and tubes	63	57	57
Plates and sheets	20	13	24
Semifabricated forms	562	530	469
Wire, bare	181	231	114
Building wire and cable†	227	183	96
Weatherproof wire†	5	2	1
Insulated copper wire n.e.s.†	973	998	1,751

† Includes exports of refined copper resulting from scrap that was reprocessed on toll for account of the shipper.

‡ Gross weight: n.e.s.—not elsewhere specified.

U. S. Zinc Imports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	1959 Sept.	1959 Oct.	1959 Nov.
Zinc Ore (content)	32,409	38,934	37,847
Canada	14,674	11,360	10,864
Mexico	10,682	17,577	14,358
Cuba . . . . .	...	48	...
Honduras	53	68	...
Bolivia	113	33	618
Colombia . . . . .	...	...	42
Peru	6,303	5,813	8,472
Spain . . . . .	...	...	3,002
U. of S. Africa	27	3,697	...
Australia	475	291	378
Philippines . . . . .	...	1	2
Other countries	82	46	111
Zinc blocks, pigs, etc.	13,273	16,839	11,045
Canada	6,444	9,436	8,224
Mexico	1,374	112	...
Peru	1,024	227	850
Austria . . . . .	...	...	220
Belgium	1,653	112	...
Italy	20	1,260	422
United Kingdom	85	...	...
Yugoslavia	717	...	...
Belgian Congo	1,116	2,020	461
Rhodesia & Nyasaland . . . . .	...	2,027	457
Australia	840	1,645	411

Total Imports:

Zinc ore, blocks, pigs	45,682	55,773	48,892
Dross and skim.	44	114	66
Old and worn out	29	...	57

U. S. Copper Scrap Exports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	1959 Sept.	1959 Oct.	1959 Nov.
Copper scrap, unalloyed* (new and old)	773	419	1,278
Canada	41	15	51
Germany (W.)	472	262	526
Italy . . . . .	...	...	66
India	180	142	11
Japan	80	...	402
Other countries . . . . .	...	...	222
Copper-base scrap, alloyed† (new and old)	1,941	1,136	1,178
Canada . . . . .	...	...	4
Mexico	5	...	...
France	20	11	...
Germany (W.)	260	165	341
Italy	121	39	22
Netherlands	11	...	...
Switzerland	84	94	...
India	102	119	...
Japan	1,019	94	716
Hong Kong	309	614	45
Other countries	10	...	50

* Ash, brass mill, clippings, dross, flue dust, residues, scale, skimmings, wire scrap.

† Copper-base alloys, including brass and bronze—ashes, clippings for remanufacture, cupro-nickel scrap, cupro-nickel trimmings, nickel silver scrap, phosphor bronze, phosphor copper, skimmings, turnings, round.

Comparative Metal Prices

	Av. 1939	Av. 1946	1959 Jan. 26
Copper, domestic Electro., Del. Val.	11.20	14.375	33.00*
Lead (N. Y.)	5.05	8.25	12.00
P. W. Zinc (E. St. Louis, f.o.b.)	5.05	5.05	13.00
New York, del. . . . .	...	...	13.50
Tin Spot Straits, N. Y. . . . .	...	...	100.25
Aluminum ingot 99½%+	20.00	15.00	28.10
Antimony (R.M.M. brand f.o.b. Laredo)	12.36	14.50	29.00

* Producers' prices.

U. S. Copper Imports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	1959 Sept.	1959 Oct.	1959 Nov.
Ore, matte & regulus (cont.)	10,660	6,674	3,381
Canada	76	24	24
Mexico	43	...	...
Cuba	1,077	2,281	...
Argentina . . . . .	...	5	106
Bolivia . . . . .	...	286	...
Chile	2,453	1,055	985
Peru	1,495	1,483	670
Philippines	4,280	...	1
U. of S. Africa	1,192	1,540	1,540
Australia	44	...	42
Other countries . . . . .	...	...	13
Blister copper (content)	25,019	17,791	20,417
Chile	22,657	17,791	17,639
Peru	594	...	...
U. of S. Africa	1,667	...	2,774
Other countries	101	...	4
Refined cathodes and shapes	40,284	19,833	43,713
Canada	13,253	12,939	17,508
Mexico	627	275	1,753
Chile	3,699	500	2,000
Peru	3,496	2,099	1,550
Belgium	2,614	189	1,784
Germany (W.)	5,751	1,120	9,194
Sweden	560	...	2,063
United Kingdom	6,181	1,851	1,684
Belgium Congo . . . . .	...	...	56
Rhodesia & Nyasaland	4,019	831	4,916
U. of S. Africa . . . . .	...	...	840
Other countries	84	29	365

Total Imports:

Crude & refined	75,963	44,298	67,511
Old and scrap (content)	474	508	1,006
Composition metal (content)	27	23	210
Brass scrap & old (cu. cont.)	265	141	258

U. S. Zinc Exports

(A.B.M.S.) (Bureau of the Census)

	1959 Sept.	1959 Oct.	1959 Nov.
Slabs, blocks, etc.	3,024	1,354	2,846
Canada	1	...	...
Mexico	242	...	39
Cuba . . . . .	...	55	...
Argentina . . . . .	...	...	43
Brazil	68	...	19
Chile	110	387	...
Colombia . . . . .	...	150	...
Belgium	1,791	...	...
Germany (W.)	56	...	...
Netherlands	112	...	...
Sweden . . . . .	...	560	1,679
United Kingdom	644	196	784
Other countries . . . . .	...	6	282*

Total Exports:

Ore, conc. slabs, blocks	3,024	1,354	2,846
Scrap, ashes, dross and skimmings	2,413	1,219	853
Battery shells and parts, un-assembled	25	13	...
Rolled in sheets, plates and strips & die castings	262	268	300
Zinc & zinc alloys in crude and semifabricated forms	26	137	63
Zinc oxide	177	76	311

* Includes 280 tons to New Zealand.

(In Tons of 2,000 Pounds)

[illegible]

(a) Reported by Copper Institute. Crude. * Recoverable contents of mine production or smelter production of shipments, and custom intake. Does not include intake of scrap nor of imported ore except that received from Cuba and Philippines. (b) Blister copper plus recoverable copper in concentrates, matte, etc., exported. (c) Crude copper, i. e., copper content of blister or converter copper as originally produced in the several countries, although some of it may be refined at home; e. g., in Rhodesia. (d) Blister and/or refined. (e) Refined. There are quantities of scrap included in the electrolytic production in addition to that reported, tonnage of which is not obtainable. (f) Smelter production. (g) Refinery production from imported blister only. (h) British Bureau of Non-Ferrous Metal Statistics. * Refined.

(In Tons of 2,000 Pounds)

	United States	Canada	Mexico	Peru	Belgium	France	Italy	Fed. Rep. of Germany	Spain	Yugoslavia	Japan	Australia (a)	French Morocco	Tunisia	Rhodesia	Total
1955 Total	547,453	148,811	221,138	67,303	91,241	73,251	162,508	46,806	67,509	83,347	40,912	254,558	28,870	28,620	17,976	1,893,125
1956 Total	613,293	147,865	213,524	61,917	111,479	73,251	178,713	42,780	64,824	83,507	51,019	256,300	30,993	26,623	17,024	1,984,344
1957 Total	604,533	142,935	218,266	55,971	.....	94,609	195,136	42,336	61,332	85,313	59,670	261,035	34,442	27,069	12,364	2,041,530
1958 Jan.	44,636	12,706	17,846	6,285	8,264	7,977	15,194	3,877	6,403	6,469	3,461	22,979	2,906	3,127	1,232	164,778
Feb.	38,827	7,175	18,315	8,819	8,548	11,229	14,581	6,307	6,872	3,567	21,563	2,767	568	1,232	1,441	164,778
Mar.	39,250	6,940	17,991	8,100	7,495	15	14,584	6,612	6,614	3,567	21,563	2,767	568	1,232	1,441	164,778
Apr.	43,269	10,908	16,256	5,192	7,849	8,202	15,700	4,367	5,692	6,942	3,587	22,632	2,184	2,369	1,120	158,285
May	45,467	12,598	11,968	5,074	7,940	9,308	17,130	4,639	7,121	9,242	3,522	22,482	3,560	2,410	1,176	164,815
June	40,486	10,645	17,067	6,448	9,495	9,068	17,785	4,826	6,914	11,155	3,555	20,148	2,625	2,519	1,120	165,400
July	44,402	11,076	20,902	5,344	10,342	10,351	18,370	5,101	7,069	11,212	3,769	21,492	4,002	2,779	1,120	179,309
Aug.	575,612	130,886	246,443	80,999	119,192	111,337	223,973	60,860	77,490	92,903	52,915	271,654	42,266	32,359	16,492	1,955,753
1959 Jan.	43,662	14,073	19,031	4,951	10,761	6,694	18,658	4,636	6,215	4,082	6,086	24,470	2,575	1,068	1,344	169,256
Feb.	39,238	12,704	18,472	6,262	9,460	5,832	17,869	4,437	6,020	5,596	6,474	22,037	2,319	1,765	1,344	157,705
Mar.	39,238	13,704	16,363	3,424	8,447	6,733	17,553	5,168	6,196	6,589	6,889	20,144	1,905	2,429	1,344	161,918
Apr.	40,606	13,655	16,621	4,438	8,038	5,541	17,141	4,942	6,491	6,876	6,615	23,919	2,726	2,155	1,344	162,611
May	39,101	13,357	16,934	6,606	8,797	7,363	17,728	3,614	7,435	8,369	6,137	23,499	2,050	1,784	1,344	165,602
June	37,459	12,997	20,000	6,540	9,125	6,976	18,128	2,453	6,510	7,854	6,349	25,151	1,552	926	1,344	164,815
July	32,882	8,096	17,099	6,401	8,734	6,065	16,381	4,384	6,074	2,221	5,303	19,125	2,859	1,749	1,344	139,291
Aug.	25,589	7,357	19,086	4,267	7,547	6,581	15,256	3,354	6,049	8,645	5,344	21,168	862	2,863	1,344	.....
Sept.	14,801	9,775	14,320	4,354	7,217	6,164	17,773	4,502	4,728	.....	5,322	22,786	3,567	2,352	1,344	.....
Oct.	18,892	.....	17,868	6,093	7,107	6,004	17,250	4,494	.....	.....	5,326	.....	3,618	2,046	1,344	.....
Nov.	18,796	.....	18,223	6,199	.....	.....	.....	.....	.....	.....	4,663	.....	.....	.....	1,344	.....

(a) Production credited to Australia includes lead refined in England from Australian base bullion.

(In Tons of 2,000 Pounds)

	United States	Can.	Mexico	Peru	Belgium	France	(All Fed. Rep. of Germany)	Italy	Yugoslavia	Norway	Spain	Yugoslavia	Japan	Australia	Rhodesia	Total
	(a)	(b)		(b-c)						(b)				(b)	(b)	(d)
1955																
Total 1955	1,031,018	257,008	61,879	18,943	233,623	123,623	197,024	90,917	77,761	31,202	49,724	26,244	15,175	122,965	113,221	2,534,457
Total 1956	1,042,954	255,601	62,136	10,428	251,906	124,105	204,961	90,784	80,407	32,123	53,170	25,224	15,434	153,821	117,445	2,630,385
Total 1957	1,574,500	247,356	62,854	35,725	259,701	148,455	202,627	85,348	81,179	32,786	52,787	24,279	30,256	152,145	123,587	2,691,699
Total 1958																
May	71,018	21,269	5,254	2,699	20,949	15,279	16,128	6,343	7,202	2,442	3,962	2,372	2,871	13,504	10,918	2,856
June	66,967	20,354	5,016	2,429	20,094	14,243	15,663	7,202	7,731	2,221	3,907	2,309	2,854	14,040	10,388	2,744
July	65,119	20,878	5,285	2,520	19,556	14,295	16,210	7,140	8,879	2,471	3,815	2,296	2,928	15,835	10,742	2,884
Aug.	62,297	21,152	5,216	2,822	18,308	14,253	16,204	6,689	5,991	2,533	3,793	2,259	2,820	12,420	11,075	2,912
Sept.	63,705	20,531	5,025	2,440	17,961	12,232	15,635	6,887	5,991	2,533	3,793	2,259	2,820	12,420	11,075	2,912
Oct.	65,904	21,125	5,344	2,305	17,866	14,176	16,462	6,046	6,442	2,820	4,915	2,313	2,793	14,436	11,045	2,940
Nov.	65,174	20,274	5,197	2,625	18,698	13,274	16,196	6,168	6,874	2,249	4,669	2,244	3,370	13,501	10,608	2,828
Dec.	75,503	21,505	5,537	2,696	18,402	13,844	17,664	6,344	2,332	4,765	2,262	2,684	12,473	10,560	2,856	219,095
Total 1959	892,607	254,661	18,354	34,685	257,540	177,422	210,408	80,494	5,965	2,841	54,423	26,750	34,446	166,883	128,548	2,464,635
Total 1960																
Jan.	76,481	21,466	5,476	2,753	19,857	13,903	17,164	5,955	5,617	2,693	4,826	2,028	2,647	11,679	10,541	2,800
Feb.	71,174	19,709	4,915	1,497	19,838	13,491	15,632	6,123	4,735	2,927	4,928	1,926	2,610	14,105	9,617	2,548
Mar.	79,918	22,135	5,439	2,363	20,216	14,230	17,325	7,797	6,801	2,991	4,917	2,369	3,014	13,217	10,759	2,800
Apr.	76,993	21,512	5,225	2,602	20,408	14,087	16,426	6,030	7,039	2,816	4,821	2,399	2,609	16,645	10,472	2,716
May	77,489	21,147	5,108	2,545	21,181	13,902	16,633	6,595	7,790	2,823	4,798	2,273	2,701	16,171	11,137	2,744
June	75,544	21,250	4,776	2,524	21,004	14,120	16,195	6,271	7,164	2,899	4,759	2,180	2,063	15,873	10,809	2,716
July	73,101	21,055	5,038	2,634	20,100	14,262	16,325	6,112	7,303	2,917	5,539	2,057	2,796	15,233	11,189	2,856
Aug.	69,768	21,588	4,965	2,504	19,472	14,138	16,585	6,507	7,370	2,968	4,646	2,198	3,355	15,308	11,298	2,912
Sept.	62,202	20,744	4,935	2,537	19,387	11,883	16,366	7,892	6,819	2,928	4,708	2,208	.....	15,133	10,985	2,800
Oct.	63,938	21,744	5,084	2,545	20,512	13,228	16,290	5,657	6,941	.....	4,582	.....	.....	15,932	11,334	2,884
Nov.	62,346	21,039	5,172	2,608	.....	.....	.....	6,203	.....	.....	3,570	.....	.....	.....	.....	2,800

(a) Partially electrolytic. (b) Entirely electrolytic. (c) Beginning 1954 both electrolytic and electrochemic. (d) The above totals omit production in Russia, Czechoslovakia, Poland and in Argentina.

U. K. Stocks of Zinc

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)				
Virgin Zinc		Zinc Conc.		
At start of:	1958	1959	1958	1959
Jan.	44,926	34,166	79,349	56,371
Feb.	43,308	34,805	82,125	58,518
Mar.	46,662	36,850	87,721	57,897
Apr.	46,608	38,457	84,631	52,151
May	47,251	38,643	80,964	47,936
June	50,539	37,713	74,470	41,954
July	49,613	38,297	71,553	45,640
Aug.	48,497	37,427	70,105	43,948
Sept.	45,590	40,358	63,909	42,385
Oct.	45,784	40,995	57,376	39,233
Nov.	39,341	35,994	53,371	38,948
Dec.	35,396	35,460	58,022	47,131

U. K. Zinc Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)			
	1959	1958	1957
	Sept.	Oct.	Nov.
(Gross Weight)			
Zinc ore and concentrates	4,230	26,535	14,547
Zinc conc.*	5,433	5,561	...
Australia	2,461	5,642	...
Peru	1,119	9	...
Burma	607	...	...
Turkey	1,246	...	...
Zinc and zinc alloys:			
(Gross Wt.)	17,095	12,599	14,707
Rhodesia-Nyasaland	225	225	250
Australia	1,452	...	852
Canada	5,842	6,079	3,652
Belgium	1,455	1,838	2,450
Germany (W.)	...	...	574
Netherlands	550	171	371
Soviet Union	300	1,556	2,109
United States	86	109	609
Belgian Congo	2,000	295	2,185
Other countries	5,185	2,326	1,655

* British Bureau of Non-Ferrous Metal Statistics. The estimated zinc content is not the content of the gross weight as officially reported for any comparable period.

† Not available.

U. K. Copper Exports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)			
	1959	1958	1957
	Sept.	Oct.	Nov.
(Gross Weight)			
Copper unwrought—ingots, blocks, slabs, bars, etc.	10,359	5,787	5,808
Plates, sheets, rods, etc.	1,507	1,542	2,825
Wire (including uninsulated electric wire)	248	340	281
Tubes	787	1,443	1,427
Other copper, worked (including pipe fittings)	134	96	163
Total	13,035	9,208	10,504

Copper Consumption in United Kingdom

British Bureau of Non-Ferrous Metal Statistics

(In tons of 2,240 pounds)					
	Unalloyed	Alloyed*	Total	Virgin	Scrap
1956 Total	388,167	251,312	639,479	500,794	138,685
1957 Total	407,326	234,158	641,484	507,493	133,991
1958					
July	36,743	17,091	53,834	42,373	11,461
August	28,416	13,756	42,172	33,073	9,108
September	42,813	18,596	61,409	52,018	9,390
October	43,402	21,788	65,190	53,937	11,253
November	40,987	19,232	60,219	47,932	12,287
December	37,580	19,118	56,698	45,968	10,730
Total	442,977	225,001	667,978	534,619	133,359
1959					
January	32,678	21,217	53,895	39,815	13,164
February	29,373	19,020	48,393	35,775	12,618
March	27,864	19,567	47,431	36,124	11,307
April	32,742	22,782	55,524	43,015	12,509
May	28,421	19,199	47,620	33,367	14,253
June	35,009	21,103	56,112	44,761	11,351
July	24,714	19,858	44,572	32,034	12,538
August	24,524	16,097	40,621	30,866	9,755
September	35,447	21,920	57,367	45,178	12,189
October	37,221	23,880	61,101	47,345	13,756
November	37,463	23,392	60,855	47,031	13,824

* Includes copper sulphate effective October, 1954.

U. K. Virgin Copper Stocks

(British Bureau of Non-Ferrous Metal Statistics)

(In long tons)			
At start of:	1957	1958	1959
Jan.	59,614	91,477	64,184
Feb.	59,203	82,483	65,941
Mar.	62,120	89,147	65,875
Apr.	61,779	94,330	72,946
May	71,101	88,582	72,318
June	61,991	88,913	78,505
July	64,121	81,851	80,477
Aug.	81,146	84,756	81,986
Sept.	98,595	89,899	89,483
Oct.	100,815	85,092	77,803
Nov.	90,877	74,696	64,602
Dec.	81,657	69,023	60,936

U. K. Refined Lead Stocks

(British Bureau of Non-Ferrous Metal Statistics)

(In long tons)			
At start of:	1957	1958	1959
Jan.	39,420	51,295	45,444
Feb.	41,433	49,134	48,102
Mar.	36,900	47,738	40,535
Apr.	34,877	40,547	53,289
May	44,933	37,509	62,286
June	40,804	34,608	63,135
July	42,148	40,518	57,810
Aug.	48,275	37,148	67,586
Sept.	51,435	43,758	66,048
Oct.	45,301	48,856	63,121
Nov.	50,371	40,216	56,697
Dec.	48,065	35,335	46,984

Zinc Imports and Exports By Principal Countries

(A.B.M.S.)

Reported in pigs, bars, etc.; metric tons except where otherwise noted.

1959			
	Aug.	Sept.	Oct.
IMPORTS			
U. S. (s.t.)	9,116	13,273	16,839
Canada (s.t.)	31	...	...
Belgium	40	10	...
Denmark	874	730	768
France	1,352	710	728
Germany, W.*	12,306	12,085	...
Italy	703	...	...
Netherlands	549	509	1,123
Sweden	1,793	3,846	...
Switzerland*	903	1,777	1,269
U. K. (l.t.)	12,594	17,095	12,599
India† (l.t.)	3,358	1,618	...
EXPORTS			
U. S. (s.t.)	214	3,024	1,354
Canada (s.t.)	11,546	12,519	13,505
Belgium	7,872	11,069	...
Denmark	15	...	120
France	477	890	689
Germany, W.*	1,003	685	...
Italy	771	...	...
Netherlands	2,175	1,720	2,199
Norway	2,488	...	...
Switzerland*	548	260	216
U. K.† (l.t.)	443	474	486
Northern			
Rhodesia† (l.t.)	3,620	1,683	3,047
Australia (l.t.)	2,763	3,835	2,933
Belgian Congo	4,935	...	...

* Includes scrap.

† Includes manufactures.

† British Bureau of Non-Ferrous Metal Statistics.

United Kingdom Tin Statistics

(British Bureau of Non-Ferrous Metal Statistics)

Tin Content of Tin in Ore									
Stock at end of period*			Tin Metal			Stock at end of period			
Imports	Production*	Imports	Production*	Consumption	Exports & Re-exports	Imports	Production*	Consumption	Exports & Re-exports
1957 Total	39,272	1,028	9,834	34,175	20,365	7,362	71,931		
1958									
October	1,913	91	1,419	145	2,488	2,072	882	20,135	
November	1,971	96	1,770	851	2,187	1,795	694	19,285	
December	2,757	90	2,299	317	2,350	1,802	1,770	19,054	
1958 Total	27,419	1,090	...	13,195	32,551	20,413	20,398	19,054	
1959									
January	1,337	113	1,095	324	2,925	1,769	2,381	16,744	
February	1,817	115	1,300	230	1,677	1,614	4,153	14,715	
March	1,645	100	1,595	...	1,672	1,773	2,658	13,264	
April	1,743	103	1,798	...	1,636	1,745	3,326	10,685	
May	1,493	92	1,575	28	1,808	1,686	2,421	9,445	
June	1,323	129	920	25	2,267	1,987	2,919	9,638	
July	2,971	112	2,043	47	2,735	1,682	2,639	11,255	
August	1,878	58	1,704	21	1,908	1,224	2,966	10,752	
September	2,808	115	2,132	33	2,229	2,073	3,742	10,624	
October	2,004	...	1,851	24	3,101	1,915	1,966	10,353	

* As reported by International Tin Study Group. Production of Tin Metal includes production from imported scrap and residues refined on toll. Stocks exclude strategic stock but include official warehouse stocks.

Canada's Copper Output

(Dominion Bureau of Statistics)

(Refined Copper)

(In Tons)

	1956	1957	1958	1959
Jan. . .	26,653	25,469	32,868	24,664
Feb. . .	26,229	21,861	28,668	28,016
Mar. . .	26,750	27,663	29,239	32,427
Apr. . .	26,617	27,398	30,635	32,130
May . .	27,626	29,086	32,471	32,622
June . .	27,122	24,093	32,418	36,979
July . .	27,250	27,195	31,131	36,067
Aug. . .	29,219	26,943	30,867	35,045
Sept. .	27,950	24,633	27,546	35,740
Oct. . .	29,696	30,312	22,572	....
Nov. . .	27,346	27,331	20,368	....
Dec. . .	28,716	31,604	19,033	....
Year	331,174	323,588	346,816	....

Canada's Copper Exports

(Dominion Bureau of Statistics)

(Ingots, bars, slabs and billets)

(In Tons)

	1956	1957	1958	1959
Jan. . .	15,981	20,582	26,883	10,620
Feb. . .	11,041	16,272	16,816	10,304
Mar. . .	12,276	14,270	18,662	11,025
Apr. . .	14,476	16,417	23,261	17,079
May . .	12,851	19,048	19,358	21,739
June . .	10,985	10,826	20,831	21,310
July . .	13,599	18,621	21,703	13,650
Aug. . .	14,710	21,980	15,881	15,155
Sept. .	17,268	14,314	15,373	28,684
Oct. . .	13,896	13,110	20,341	....
Nov. . .	19,130	16,622	14,391	....
Dec. . .	18,630	16,282	11,138	....
Year	174,843	198,794	224,638	....

Canada's Lead Output

(Dominion Bureau of Statistics)

(Recoverable Lead)*

(In Tons)

	1956	1957	1958	1959
Jan. . .	16,002	14,032	17,117	17,118
Feb. . .	14,344	15,170	14,908	15,923
Mar. . .	16,857	16,940	15,421	17,389
Apr. . .	11,573	14,275	15,644	16,237
May . .	15,446	14,591	15,131	16,813
June . .	18,145	16,431	15,645	14,968
July . .	15,841	14,377	14,076	15,111
Aug. . .	16,104	14,679	12,260	14,104
Sept. .	15,760	15,869	15,401	12,420
Oct. . .	16,725	14,151	14,564	13,958
Nov. . .	14,865	15,879	16,680	....
Dec. . .	16,056	15,296	18,248	....
Year	188,971	171,690	185,095	....

* New base bullion from Canadian ores plus recoverable lead in ores or concentrates shipped for export.

Canada's Lead Exports

(Dominion Bureau of Statistics)

(In Pigs)

(In Tons)

	1956	1957	1958	1959
Jan. . .	4,888	8,946	4,752	5,034
Feb. . .	3,856	6,633	1,553	6,377
Mar. . .	4,007	7,044	9,497	11,831
Apr. . .	7,636	7,314	7,450	7,836
May . .	7,214	9,676	7,764	12,230
June . .	6,632	7,210	4,036	15,610
July . .	9,696	4,682	12,629	3,478
Aug. . .	4,713	6,416	7,232	4,023
Sept. .	9,908	8,467	5,125	3,895
Oct. . .	9,072	7,761	10,320	4,885
Nov. . .	9,227	6,175	10,641	....
Dec. . .	2,734	4,217	11,352	....
Year	79,633	84,541	92,351	....

Canada's Zinc Output

(Dominion Bureau of Statistics)

(Refined Zinc)

(In Tons)

	1956	1957	1958	1959
Jan. . .	21,696	20,340	21,801	21,456
Feb. . .	20,356	19,808	19,743	19,709
Mar. . .	22,010	21,941	22,314	22,135
Apr. . .	21,339	20,504	20,989	21,512
May . .	21,790	20,564	21,269	21,147
June . .	20,780	19,928	20,353	21,250
July . .	21,691	20,061	20,873	21,055
Aug. . .	21,354	20,305	21,152	21,588
Sept. .	20,691	20,247	20,530	20,744
Oct. . .	21,412	20,892	21,125	21,744
Nov. . .	20,470	20,933	20,273	....
Dec. . .	22,012	21,823	21,705	....
Year	255,607	247,351	252,157	....

Canada's Zinc Exports

(Dominion Bureau of Statistics)

(Slabs in Tons)

	1956	1957	1958	1959
Jan. . .	15,550	19,304	17,349	13,565
Feb. . .	11,757	16,618	8,376	12,675
Mar. . .	8,822	14,923	19,636	14,617
Apr. . .	14,317	17,131	16,346	12,789
May . .	11,357	16,680	15,121	11,049
June . .	15,296	16,157	7,776	20,298
July . .	15,499	12,912	27,394	23,122
Aug. . .	13,070	20,520	15,906	18,464
Sept. .	19,732	17,671	8,670	14,367
Oct. . .	20,792	16,735	22,810	12,518
Nov. . .	21,411	17,225	17,978	....
Dec. . .	16,125	16,131	18,344	....
Year	183,728	202,007	195,707	....

Canada's Silver Exports

(Dominion Bureau of Statistics)

(In ores and concentrates)

(Fine Ounces)

	1957	1958	1959
Jan. . .	253,940	634,715	185,367
Feb. . .	380,463	208,149	329,742
Mar. . .	521,849	350,827	425,973
Apr. . .	431,646	284,971	989,593
May . .	523,228	376,082	564,017
June . .	468,559	438,253	871,570
July . .	844,545	529,770	728,598
Aug. . .	811,530	279,511	688,042
Sept. .	861,857	583,570	763,017
Oct. . .	432,000	323,475	767,939
Nov. . .	263,273	217,892	....
Dec. . .	186,569	871,573	....
Year	5,979,459	5,098,788	....

Canada's Silver Output

(Dominion Bureau of Statistics)

(In Ounces)

	1957	1958	1959
Jan. . .	2,158,631	2,529,583	3,094,440
Feb. . .	2,051,679	2,294,655	2,264,903
Mar. . .	2,346,316	2,448,698	2,782,307
Apr. . .	2,225,638	2,558,958	2,691,503
May . .	2,111,185	2,650,665	2,499,149
June . .	2,208,584	2,527,632	2,676,937
July . .	2,383,390	2,385,687	2,867,957
Aug. . .	2,592,468	2,884,154	2,519,033
Sept. .	2,382,121	2,856,304	2,446,846
Oct. . .	2,817,358	2,390,027	3,072,219
Nov. . .	2,566,519	2,643,790	....
Dec. . .	2,537,984	2,917,528	....
Year	28,361,873	31,087,681	....

Canada's Nickel Output

(Dominion Bureau of Statistics)

(In Tons)

	1956	1957	1958	1959
Jan. . .	14,985	16,609	16,710	8,047
Feb. . .	14,997	15,027	15,896	12,616
Mar. . .	15,504	16,733	15,853	14,922
Apr. . .	14,431	15,347	15,163	15,493
May . .	15,203	16,225	15,231	16,622
June . .	14,492	15,447	14,603	16,599
July . .	15,125	15,878	12,851	16,199
Aug. . .	14,852	16,756	12,597	16,784
Sept. .	14,530	15,604	11,786	16,205
Oct. . .	15,762	15,628	3,682	....
Nov. . .	15,062	14,587	3,178	....
Dec. . .	14,824	15,096	3,298	....
Year	178,767	188,962	140,842	....

METALS, JANUARY, 1960

Canadian Copper Exports

(Dominion Bureau of Statistics)

	(In tons of 2,000 lbs.)		
	1959	1959	1959
	Sept.	Oct.	Nov.
Ore, matte, regulus, etc. (content)	2,629	1,699	1,992
United States	453	4	389
Belgium	139	...	...
Norway	1,852	1,214	1,198
United Kingdom	185	88	128
Japan .....	...	393	277
Ingots, bars, billets, anodes	28,684	21,348	27,649
United States	15,661	11,018	16,622
Belgium	280	280	280
France	1,037	140	840
Germany (W.)	784	1,148	390
Greece .....	...	224	...
Italy	504	224	84
Netherlands	812	112	784
Portugal .....	...	56	...
United Kingdom	8,556	7,220	7,978
India	1,049	924	669
Other countries	1	2	2
Total Exports:			
Crude & refined	31,313	23,047	29,641
Old and scrap	852	563	1,117
Rods, strips, sheet & tubing	1,861	1,321	1,889

Canadian Zinc Exports

(Dominion Bureau of Statistics)

	(In tons of 2,000 lbs.)		
	1959	1959	1959
	Sept.	Oct.	Nov.
Ore (zinc content)	14,367	12,518	16,576
United States	10,458	10,194	12,878
Belgium	3,571	...	...
Germany (W.)	338	...	...
United Kingdom .....	...	...	3,698
Japan .....	...	2,324	...
Slab zinc	12,519	13,505	17,902
United States	6,960	7,741	9,097
United Kingdom	5,497	5,578	8,743
Korea	62	186	62
Total Exports:			
Ore and slabs	26,886	26,023	34,478
Zinc scrap, dross, ashes	777	394	438
United States	47	165	47
Belgium	730	100	25
Netherlands .....	...	103	314
Japan .....	...	26	52

French Copper Imports

(A.B.M.S.)

	(In metric tons)		
	1959	1959	1959
	Sept.	Oct.	Nov.
Crude copper for refining (blister, black and cement) ..	974	813	...
United Kingdom ..	161	...	...
Belgian Congo ..	813	813	...
Refined	6,166	12,955	7,610
United States ..	718	3,451	333
Canada	813	762	762
Chile .....	...	750	...
Belgium	2,488	4,777	3,170
Germany (W.) ..	86	1	69
Norway	127	127	152
Sweden .....	...	...	38
Belgian Congo ..	832	2,579	775
Rhodesia-Nyasaland ...	1,102	508	2,311

METALS, JANUARY, 1960

Canadian Lead Exports

(Dominion Bureau of Statistics)

	(In tons of 2,000 lbs.)		
	1959	1959	1959
	Sept.	Oct.	Nov.
Ore (lead content)	6,081	1,760	2,381
United States ..	2,925	1,760	2,381
Belgium	3,156	...	...
Refined lead	3,895	4,884	6,785
United States ..	3,524	1,381	1,821
United Kingdom ..	280	3,488	4,964
Korea	49	...	...
Other countries ..	42	15	...
Total Exports:			
Ore and refined ..	9,976	6,644	9,166
Pipe and tubing ..	...	...	2
Lead scrap	367	384	115

Copper Imports and Exports By Principal Countries

(A.B.M.S.)

Reported in ingots, slabs, etc.; metric tons except where otherwise noted.

	1959		
	Aug.	Sept.	Oct.
IMPORTS			
U. S. (blister, s.t.) ..	18,837	25,019	17,791
(ore, etc., s.t.)	6,301	10,660	6,674
(ref., s.t.)	12,935	40,284	19,833
Belgium*	16,210	16,222	...
Denmark	401	97	718
France (crude) .....	...	974	813
(refined)	13,376	6,166	12,955
Italy	5,937	...	...
Germany, West	31,768	31,603	...
Netherlands	1,450	2,795	3,199
Norway	125	...	...
Sweden	5,016	8,652	...
Switzerland	3,286	2,892	1,538
U. K. (l.t.)	35,921	38,040	37,023
India (blister/-ref., l.t.)†	3,146	4,119	...
EXPORTS			
U. S. (ore and unref., s.t.) ..	...	6	...
(refined, s.t.)	16,605	8,965	4,404
Canada .....	...	...	...
(refined, s.t.) ..	15,155	28,684	21,348
Belgium*	12,280	12,677	...
Finland‡	455	720	...
Germany, West ..	5,934	9,408	...
Norway	1,485	...	...
Sweden	1,267	841	...
U. K. (l.t.)	7,284	10,359	5,787
Turkey*	508	...	...
Belgian Congo** ..	24,733	...	...
No. Rhodesia (blister & ref., l.t.)†	41,910	41,838	53,649

* Includes alloys.

** Copper wire bars and ingot bars 99% and copper ingots 97%.

† British Bureau of Non-Ferrous Metal Statistics.

‡ Includes old.

Canada's Nickel Exports

(Dominion Bureau of Statistics)

	(Refined, in oxides, matte, etc.)		
	(In Tons)	1957	1958
1957			
January	14,260	14,233	6,757
February	9,974	12,157	7,976
March	14,958	12,316	14,006
April	18,671	20,962	14,213
May	18,351	20,574	16,142
June	14,539	16,144	15,901
July	14,181	14,055	11,985
August	14,966	13,012	13,664
September	14,160	14,371	19,143
October	13,370	8,335	...
November	16,420	3,001	...
December	14,606	5,060	...
Year	178,656	154,230	...

French Zinc Imports

(A.B.M.S.)

	(In metric tons)		
	1959	1959	1959
	Sept.	Oct.	Nov.
Ore (gross weight)	22,343	19,397	14,604
Belgium	13	494	...
Finland	2,000	...	1,700
Greece .....	...	...	1,576
Italy	5,934	5,029	2,080
Norway .....	...	508	1,066
Algeria	9,980	7,502	3,091
Morocco	2,179	5,864	2,981
Tunisia .....	...	...	2,110
Belgian Congo ..	2,196	...	...
Burma	41	...	...
Slabs, bars, blocks, etc.	710	728	496
Belgium	330	435	200
Germany (W.) ..	...	40	...
Italy	157	91	127
Norway .....	...	150	...
Algeria .....	...	12	6
Rhodesia & Nyasaland ...	223	...	163

French Metal Exports

(A.B.M.S.)

	(In metric tons)		
	1959	1959	1959
	Sept.	Oct.	Nov.
LEAD			
Ore (gr. wt.) ...	716	83	234
Pig lead	117	200	726
Germany (W.) ..	...	...	153
Sweden	12	...	...
Switzerland	50	100	255
Other countries ..	55	100	11
Egypt .....	...	...	307
Antimonial lead ..	24	71	59

ZINC

Slabs, bars, blocks, etc.	890	689	676
--------------------------------	-----	-----	-----

COPPER

Crude copper for refining (blister, black and cement)	146	566	815
---	-----	-----	-----

U. K. Copper Imports

(British Bureau of Non-Ferrous Metal Statistics)

	(In tons of 2,240 lbs.)		
	1959	1959	1959
	Sept.	Oct.	Nov.
(Gross Weight)			
Copper and copper alloys ..	38,040	37,023	33,957
U. of S. Africa ..	200	250	1,050
Rhodesia-Nyasaland ...	19,566	20,157	18,893
Canada	7,636	6,326	5,100
Belgium	4	3	133
Germany (W.) ..	24	25	47
Norway	550	300	300
Sweden .....	...	2	...
United States ..	1,521	465	724
Chile	8,000	9,025	7,024
Peru .....	...	175	100
Belgian Congo ..	500	254	250
Other countries ..	39	41	336
Of which:			
Electrolytic	28,061	25,283	20,833
Other refined ...	4,476	3,550	3,925
Blister or wrought	5,400	7,696	8,541
Wrought and alloys	104	494	658
Total	38,040	37,023	33,957

Nonferrous Castings

MONTHLY SHIPMENTS, BY TYPE OF METAL
(Bureau of Census — Thousands of Pounds)

	Alu- minum	Copper	Mag- nesium	Zinc	Lead Die
1954 Total	607,764	834,557	25,572	474,741	18,396
1955 Total	833,058	1,011,748	27,892	781,254	21,045
1956 Total	801,136	966,473	36,168	88,069	20,734
1957 Total	751,856	875,389	30,322	663,330	23,791
1958					
April	44,948	59,311	2,215	35,796	1,467
May	44,093	57,506	2,422	36,447	1,655
June	40,701	57,124	2,205	38,132	1,971
July	38,818	51,124	2,200	32,765	1,394
August	45,034	57,790	1,869	35,860	1,804
September	52,796	64,447	2,804	47,127	1,725
October	55,699	74,012	2,627	45,045	1,708
November	55,793	62,476	2,615	48,431	1,409
December	59,487	67,905	2,612	55,600	1,497
Total	596,816	739,915	27,228	508,297	18,920
1959					
January	62,927	66,874	2,151	53,347	1,571
February	62,486	69,589	2,162	48,779	1,285
March	73,351	78,641	2,129	57,600	1,765
April	72,976	82,799	2,455	57,325	1,862
May	68,268	78,413	2,370	60,656	2,025
June	66,471	79,730	2,484	56,128	2,007
July	56,911	67,073	2,265	46,756	1,858
August	55,904	68,979	2,243	46,566	1,898
September	66,193	76,045	2,263	58,144	2,218

Copper Castings Shipments

BY TYPE OF CASTING
(Bureau of Census) (Thousands of Pounds)

	Total	Sand	Mold	Die	All Other
1952 Total	1,009,910	910,862	63,865	8,259	26,924
1953 Total	990,496	888,369	61,316	10,077	30,734
1954 Total	834,557	751,804	48,849	6,480	27,394
1955 Total	1,011,748	907,852	63,041	8,541	31,408
1956 Total	966,113	866,404	57,522	10,023	32,134
1957 Total	875,389	789,819	44,746	10,776	30,048
1958					
February	58,356	52,579	3,202	796	1,779
March	60,157	54,007	3,395	823	1,932
April	59,311	53,271	3,385	949	1,705
May	57,506	51,634	3,077	891	1,904
June	57,124	51,967	3,001	839	1,317
July	51,124	46,636	2,351	792	1,345
August	57,590	52,981	2,425	682	1,702
September	64,447	58,435	2,888	876	2,248
October	74,012	67,564	3,239	790	2,419
November	62,746	57,386	2,604	810	1,946
December	67,905	61,119	3,535	1,059	2,192
Total	739,985	667,255	36,529	10,201	22,681
1959					
January	66,874	59,856	3,572	1,216	2,230
February	66,589	62,593	3,557	1,176	2,263
March	78,641	69,472	4,333	1,361	3,475
April	82,799	73,567	4,640	1,328	3,264
May	78,413	69,351	4,363	1,291	3,408
June	79,730	70,836	4,421	1,175	3,298
July	69,073	61,650	3,869	946	2,608
August	68,979	60,346	4,410	993	3,230
September	76,045	66,517	4,810	1,138	3,580

Nickel Averages

Electro, cathode sheets, 99.00%,
f.o.b. refinery, duty included
(Cents per pound)

	1956	1957	1958	1959
Jan.	64.50	74.00	74.00	74.00
Feb.	64.50	74.00	74.00	74.00
Mar.	64.50	74.00	74.00	74.00
Apr.	64.50	74.00	74.00	74.00
May	64.50	74.00	74.00	74.00
June	64.50	74.00	74.00	74.00
July	64.50	74.00	74.00	74.00
Aug.	64.50	74.00	74.00	74.00
Sept.	64.50	74.00	74.00	74.00
Oct.	64.50	74.00	74.00	74.00
Nov.	64.50	74.00	74.00	74.00
Dec.	72.48	74.00	74.00	74.00
Aver.	65.165	74.00	74.00	74.00

Platinum Averages

N. Y. MONTHLY QUOTATIONS
(Dollars per Troy Ounce)

	1956	1957	1958	1959
Jan.	106.30	101.92	77.85	52.57
Feb.	104.34	98.59	74.82	59.25
Mar.	104.23	93.50	72.096	77.10
Apr.	103.92	93.45	70.72	77.18
May	105.23	92.865	67.34	77.50
June	106.50	92.02	66.18	77.50
July	106.50	90.265	64.35	78.00
Aug.	105.76	84.426	60.94	78.00
Sept.	105.50	84.00	59.50	78.00
Oct.	104.85	84.00	57.327	78.00
Nov.	104.50	83.80	56.41	78.44
Dec.	104.50	78.70	53.154	78.50
Aver.	105.18	89.79	65.07	74.17

Spot Straits Tin

(Straits, Open Market, N. Y.)

Monthly Average Prices

	1956	1957	1958	1959
Jan.	105.036	101.511	92.94	99.411
Feb.	100.803	101.132	93.915	102.785
Mar.	100.786	99.643	94.452	103.042
Apr.	92.268	99.304	92.988	102.505
May	96.994	93.347	94.512	103.125
June	94.589	98.05	94.708	104.25
July	96.143	96.52	94.892	102.337
Aug.	99.049	94.261	94.988	102.333
Sept.	103.809	93.406	94.101	102.44
Oct.	106.023	91.838	96.523	102.238
Nov.	110.921	89.236	99.118	101.021
Dec.	104.268	92.35	98.989	99.176
Aver.	101.475	96.301	95.177	102.055

Prompt Tin Prices

(Straits, Open Market, N. Y.)

Monthly Average Prices
(Cents per Pound)

	1956	1957	1958	1959
Jan.	104.768	101.347	92.653	99.351
Feb.	100.586	100.257	93.763	102.708
Mar.	100.524	99.476	94.363	103.042
Apr.	99.145	99.286	92.988	102.505
May	96.853	98.335	94.512	103.107
June	94.488	98.025	94.619	104.142
July	96.131	96.44	94.892	102.337
Aug.	98.924	94.159	94.976	102.345
Sept.	103.559	93.313	94.054	102.435
Oct.	105.716	91.848	96.455	102.238
Nov.	110.329	89.236	98.985	100.972
Dec.	104.00	92.34	98.96	99.176
Aver.	101.252	93.672	95.069	102.03

Quicksilver Averages

N. Y. Monthly Averages

Virgin, Dollars per 76-lb Flask

	1956	1957	1958	1959
Jan.	277.80	256.00	224.35	219.50
Feb.	270.29	256.00	229.39	219.50
Mar.	261.40	256.00	232.096	223.57
Apr.	267.22	256.00	233.06	239.52
May	267.675	256.00	229.48	245.86
June	260.69	256.00	229.00	241.64
July	256.06	256.00	230.25	236.74
Aug.	256.00	252.20	240.27	232.524
Sept.	256.00	248.58	241.12	225.429
Oct.	255.92	234.48	235.94	224.548
Nov.	255.13	228.33	230.05	217.944
Dec.	256.00	226.50	223.54	215.05
Aver.	261.71	248.51	230.96	228.49

METALS, JANUARY, 1960

Primary Aluminum Output, Shipments and Stocks

(U. S. Department of Interior)					
	Stocks beginning of month short tons	Production short tons	Short tons	Sold or Used Value f. o. b. plant	Stocks end of month short tons
1957 Total	1,647,714	1,579,035			
1958					
August	152,554	125,416	132,765	64,611,494	145,205
September	145,205	124,714	146,870	71,641,275	125,049
October	124,274	139,836	139,908	68,881,146	124,202
November	124,202	140,962	126,619	62,133,129	138,545
December	138,545	152,201	145,125	70,946,494	145,721
Total	1,565,556	1,595,067			
1959					
January	146,086	156,700	127,678	\$62,375,824	175,108
February	175,108	142,116	133,397	65,668,578	183,827
March	183,827	157,189	181,839	82,304,609	159,177
April	159,177	155,213	182,930	90,070,280	131,460
May	131,460	163,857	182,607	89,672,327	112,710
June	112,710	167,323	191,421	93,955,552	88,612
July	88,612	179,194	187,387	91,635,864	80,419
August	80,419	172,816	159,206	77,711,678	94,029
September	94,029	168,206	153,170	74,809,052	109,065
October	109,065	173,742	151,683	73,293,070	131,124

Aluminum Wrought Products

PRODUCERS' MONTHLY NET SHIPMENTS
(Bureau of Census — Thousands of Pounds)

	Total	Sheet, Plate, Foil, Rod & Bar	Wire & Cable	Extruded Shapes & Tubing	Powder & Paste
1955 Total	2,805,500	1,542,368	365,391	812,311	35,854
1956 Total	2,870,101	1,577,601	398,602	782,398	28,017
1957 Total	2,677,423	1,396,502	399,040	789,430	28,187
1958					
May	217,299	115,660	27,361	67,376	2,389
June	228,587	118,767	28,674	74,580	2,248
July	229,654	126,160	24,678	72,194	2,642
August	213,548	115,376	23,581	67,953	3,154
September	231,168	125,937	23,287	75,269	2,665
October	254,023	128,967	24,442	85,038	2,163
November	216,249	121,190	17,771	71,666	1,723
December	235,377	130,474	26,253	72,979	1,806
Total	2,624,911	1,441,385	285,355	821,249	25,742
1959					
January	235,463	132,361	26,480	70,309	2,246
February	230,733	131,564	21,740	71,364	2,028
March	271,642	161,285	21,940	81,276	2,578
April	293,554	166,942	25,468	93,475	3,178
May	320,786	184,664	28,532	99,308	3,641
June	341,389	195,476	30,156	107,038	3,901
July	373,060	211,850	39,902	111,661	4,708
August	247,833	126,512	29,411	85,380	2,537
September	262,749	140,313	25,843	89,986	2,419
October	286,841	154,856	27,614	97,071	2,697

Aluminum Castings Shipments

(Bureau of Census)
BY TYPE OF CASTING
(Thousands of Pounds)

	Total	Sand	Permanent	Die	All Other
1954 Total	609,066	155,738	213,968	232,726	6,800
1955 Total	833,058	171,757	298,115	354,804	8,282
1956 Total	801,036	171,763	245,421	376,108	7,736
1957 Total	751,656	144,121	232,326	369,086	...
1958					
June	40,701	8,644	13,679	18,292	...
July	38,818	8,658	12,342	17,714	...
August	45,034	9,034	14,426	21,505	...
September	52,796	10,261	16,241	26,254	...
October	55,699	10,932	17,189	27,511	...
November	55,793	10,539	16,942	28,264	...
December	59,487	10,874	18,970	29,579	...
Total	596,790	117,421	186,949	292,599	...
1959					
January	62,927	10,907	20,606	21,349	...
February	62,846	10,627	21,127	31,021	...
March	73,351	12,412	26,964	33,949	...
April	72,976	12,700	26,153	33,992	...
May	68,268	11,979	25,283	30,877	...
June	66,471	12,306	24,927	29,092	...
July	56,911	11,581	20,410	24,786	...
August	55,904	11,130	17,824	26,818	...
September	66,193	12,309	21,506	32,239	...

Virgin Aluminum

Ingot (30 lb.) 99 3/4 % Plus, Delivered
Monthly Average Prices
(Cents per pound)

	1956	1957	1958	1959
Jan.	24.40	27.10	28.10	26.80
Feb.	24.40	27.10	28.10	26.80
Mar.	24.60	27.10	28.10	26.80
Apr.	25.90	27.10	28.10	26.80
May	25.90	27.10	28.10	26.80
June	25.90	27.10	28.10	26.80
July	25.90	27.10	28.10	26.80
Aug.	26.70	28.10	26.77	26.80
Sept.	27.10	28.10	26.80	26.80
Oct.	27.10	28.10	26.80	26.80
Nov.	27.10	28.10	26.80	26.80
Dec.	27.10	28.10	26.80	27.361
Aver.	26.008	27.517	26.889	26.847

Magnesium Wrought Products Shipments

(Bureau of Census)

(Thousands of Pounds)

	1956	1957	1958	1959
Jan.	2,188	2,130	1,271	1,271
Feb.	1,901	2,522	1,280	1,691
Mar.	1,946	2,388	1,398	1,717
Apr.	2,279	2,511	1,479	2,089
May	2,462	2,230	1,443	1,644
June	2,302	1,881	1,709	1,946
July	2,002	1,428	1,227	1,681
Aug.	2,523	1,540	1,823	1,823
Sept.	2,031	1,501	1,807	1,807
Oct.	861	1,453	1,983	....
Nov.	2,141	1,230	1,662	....
Dec.	2,452	1,102	1,622	....
Total	24,975	21,915	18,702	....

Cadmium Averages

N. Y. Monthly Averages
Cents per lb. in ton lots

	1956	1957	1958	1959
Jan.	170.00	170.00	155.00	145.00
Feb.	170.00	170.00	155.00	145.00
Mar.	170.00	170.00	155.00	145.00
Apr.	170.00	170.00	155.00	120.00
May	170.00	170.00	155.00	120.00
June	170.00	170.00	155.00	120.00
July	170.00	170.00	155.00	120.00
Aug.	170.00	170.00	155.00	120.00
Sept.	170.00	170.00	152.60	120.00
Oct.	170.00	170.00	145.00	*140.00
Nov.	170.00	170.00	145.00	140.00
Dec.	170.00	166.40	145.00	140.00
Aver.	170.00	169.70	152.30	132.00

* As of Oct. 1, 1959, for lots of up to one ton.

Steel Ingot Production

(American Iron and Steel Institute)

Period	Estimated Production — All Companies				Calculated weekly production, all companies			
	OPEN HEARTH		BESSEMER		ELECTRIC		TOTAL	
	Net tons	% of capacity	Net tons	% of capacity	Net tons	% of capacity	Net tons	% of capacity
1954 Total	80,327,494	73.6	2,548,104	53.2	5,436,054	52.0	88,311,652	71.0
1956 Total	102,840,585	91.6	3,227,997	67.4	9,147,567	81.2	115,216,149	89.8
1957 Total	101,657,776	87.0	2,475,138	54.9	8,582,082	71.3	112,714,996	84.5
1958								
June	6,378,942	63.4	88,125	26.6	660,413	55.8	7,127,480	61.6
July	5,712,587	55.0	114,218	33.4	593,600	48.6	6,420,405	53.7
August	6,481,815	62.4	134,135	39.3	670,383	54.8	7,286,003	61
September	6,769,660	67.3	103,194	31.2	737,518	62.3	7,610,372	65.8
October	7,795,541	75.0	148,458	43.4	873,779	71.5	8,817,778	73.8
November	7,572,555	75.3	145,867	44.1	860,896	71.9	8,569,318	74.1
December	7,764,000	74.7	117,000	34.2	832,000	68.1	8,793,000	72.9
Total	75,888,392	62.0	1,396,348	34.7	7,972,623	55.4	85,257,363	69.6
1959								
January	8,280,985	77.1	120,005	39.5	729,676	63.7	9,317,385	74.3
February	8,540,000	88.0	129,000	47.0	757,000	73.1	9,603,000	84.8
March	10,216,474	95.1	184,892	60.9	929,784	81.1	11,567,445	92.3
April	9,884,332	95.0	196,000	66.2	964,850	87.0	11,281,920	93.0
May	10,117,968	94.2	200,887	66.1	1,024,401	89.4	11,600,581	92.5
June	9,521,063	91.6	185,794	63.2	941,056	84.8	10,907,634	89.9
July	9,540,182	91.9	66,493	21.9	526,025	45.9	5,227,129	41.7
August	1,171,342	10.9			267,935	23.4	1,439,277	11.5
September	1,249,398	12.0			285,619	25.8	1,535,017	12.7
October	1,385,490	12.9			319,043	27.8	1,704,533	13.6
November	6,290,659	60.5	92,361	31.4	764,793	68.0	7,267,607	52.9
December	10,461,000	97.3	206,000	67.8	1,032,000	90.0	11,980,000	95.5

Steel Ingot Operations

(Percentage of Capacity as Reported by American Iron & Steel Institute)

Week

Beginning 1957 1958 1959 1960

Jan. 4...	98.4	56.1	76.2	...
Jan. 11...	96.4	57.0	73.6	...
Jan. 18...	96.6	55.5	74.6	...
Jan. 25...	97.6	54.0	72.6	...
Feb. 1...	97.1	54.0	76.9	...
Feb. 8...	97.7	53.5	83.8	...
Feb. 15...	97.8	50.9	83.7	...
Feb. 22...	96.0	54.6	88.5	...
Feb. 29...	97.1	53.1	90.3	...
Mar. 7...	93.8	52.4	92.0	...
Mar. 14...	93.5	52.5	92.9	...
Mar. 21...	92.4	50.6	92.9	...
Mar. 28...	90.6	48.6	93.2	...
Apr. 4...	90.3	48.5	93.3	...
Apr. 11...	90.4	46.8	93.8	...
Apr. 18...	88.7	47.9	93.5	...
Apr. 25...	87.0	47.8	94.2	...
May 2...	86.7	49.4	92.0	...
May 9...	84.2	52.3	92.9	...
May 16...	86.4	56.4	93.4	...
May 23...	88.0	58.1	93.6	...
May 30...	87.5	62.5	93.7	...
June 6...	86.5	84.0	92.0	...
June 13...	85.2	64.9	92.5	...
June 20...	84.0	61.7	87.8	...
June 27...	78.5	51.0	78.2	...
July 4...	78.7	53.4	79.5	...
July 11...	79.3	54.9	38.7	...
July 18...	79.4	57.3	12.9	...
July 25...	79.4	57.8	12.2	...
Aug. 1...	79.8	58.8	11.2	...
Aug. 8...	80.6	60.5	11.8	...
Aug. 15...	82.1	62.6	11.3	...
Aug. 22...	82.2	63.5	11.7	...
Aug. 29...	81.0	61.7	11.5	...
Sept. 5...	81.9	65.9	11.6	...
Sept. 12...	82.1	65.6	12.6	...
Sept. 19...	82.2	67.3	12.8	...
Sept. 26...	82.6	70.4	12.8	...
Oct. 3...	82.8	71.6	12.8	...
Oct. 10...	80.9	74.2	13.0	...
Oct. 17...	80.2	74.8	13.1	...
Oct. 24...	79.7	75.0	13.1	...
Oct. 31...	78.0	74.5	13.0	...
Nov. 7...	77.7	74.5	45.6	...
Nov. 14...	76.0	74.1	78.9	...
Nov. 21...	72.1	73.7	89.7	...
Nov. 28...	71.5	73.5	93.6	...
Dec. 5...	69.2	73.5	96.5	...
Dec. 12...	67.7	74.5	96.3	...
Dec. 19...	53.7	74.5	...	...
Dec. 26...	59.0	73.6	...	...

Blast Furnace Output

(American Iron and Steel Institute)

Period	Estimated Production — All Companies			
	Net tons	% of capacity	Net tons	% of capacity
1951				
Total	70,487,880	745,381	71,332,761	98.3
1952				
Total	81,538,665	629,936	62,188,891	84.2
1953				
Total	74,987,721	855,038	75,842,759	95.5
1954				
Total	68,119,382	668,735	68,088,117	71.6
1955				
Total	77,114,978	668,758	77,800,381	91.7
1956				
Dec.	7,268,743	65,841	7,334,534	101.0
Total	75,301,134	664,341	75,965,475	88.9
1957				
May	6,879,881	65,566	6,945,447	94.2
June	5,993,326	66,266	6,659,592	93.3
July	6,625,901	66,031	6,691,932	90.8
Aug.	6,719,763	61,988	6,781,751	92.0
Sept.	6,569,074	58,837	6,627,911	92.9
Oct.	6,454,450	55,028	6,519,478	88.4
Nov.	5,711,242	66,837	5,779,879	81.0
Dec.	5,212,624	69,175	4,854,444	62.8
Total	78,567,011	782,660	79,339,671	91.4
1958				
Jan.	4,785,269	69,175	4,854,444	62.8
Feb.	4,016,276	47,953	4,064,229	58.2
Mar.	4,418,778	45,175	4,463,963	57.8
April	3,787,907	39,302	3,827,209	51.2
May	4,048,328	25,468	4,073,796	52.7
June	4,596,285	26,463	4,422,748	59.1
July	4,277,515	26,668	4,304,189	58.7
Aug.	4,799,955	31,374	4,831,329	62.1
Sept.	5,041,042	31,348	5,072,390	67.8
Oct.	5,835,995	36,963	5,872,958	76.0
Nov.	5,907,838	39,275	5,946,163	79.5
Dec.	6,025,335	47,505	6,072,890	78.6
Total	57,298,644	465,456	57,298,644	63.5
1959				
Jan.	6,260,395	48,572	6,211,823	77.9
Feb.	6,047,398	45,274	6,192,672	85.3
March	7,461,760	48,291	7,510,061	93.4
April	7,338,372	54,234	7,392,606	96.0
May	7,683,759	64,237	7,747,996	96.4
June	7,231,631	58,315	7,289,946	93.7
July	8,550,159	23,391	3,573,550	44.5
Aug.			947,779	11.8
Sept.			949,103	12.2
Oct.			1,017,659	12.7
Nov.	4,199,101	20,172	4,219,273	54.2

Steel Castings Shipments

(Bureau of Census)

Period	(Short Tons)		
	Total	For Sale	For Own Use
1951	2,101,604	1,507,413	594,191
1952	1,925,116	1,476,352	448,767
1953	1,829,277	1,290,016	431,830
1954	1,184,096	880,158	303,938
1955	1,530,694	1,166,706	363,988
1956	1,931,987	1,512,290	416,697
1957			
Aug.	145,926	111,080	34,846
Sept.	139,002	105,611	33,391
Oct.	146,397	113,216	33,181
Nov.	127,115	98,436	28,679
Dec.	120,787	92,125	28,662
Total	1,766,191	1,261,301	406,444
1958			
Jan.	120,722	94,717	26,005
Feb.	103,297	79,708	23,589
Mar.	106,233	82,195	24,038
Apr.	91,464	69,121	22,343
May	87,002	66,086	20,916
June	92,681	71,624	21,237
July	68,802	48,618	10,184
Aug.	80,886	59,816	21,070
Sept.	85,277	64,586	20,691
Oct.	95,389	73,367	22,022
Nov.	85,267	65,788	19,479
Dec.	103,800	81,360	22,440
Total	1,114,939	859,125	255,814
1959			
Jan.	105,392	82,693	22,709
Feb.	110,280	86,013	24,267
Mar.	131,317	103,848	27,469
Apr.	134,344	104,890	29,454
May	135,359	105,804	29,555
June	143,624	111,725	31,899
July	106,790	83,541	23,249
Aug.	98,014	79,188	18,826
Sept.	99,731	79,963	19,768
Oct.	105,570	84,850	20,720

Galvanized Sheet Shipments

(American Iron and Steel Institute)

Period	(Net Tons)			
	1956	1957	1958	1959
Jan.	269,464	235,902	186,649	279,244
Feb.	272,997	205,048	167,627	281,637
Mar.	291,193	206,836	195,885	311,961
Apr.	266,728	198,585	206,368	328,759
May	272,741	206,657	231,318	317,059
June	279,058	239,037	277,180	350,333
July		167,247	239,883	180,787
Aug.	276,048	186,790	253,263	N.A.
Sept.	256,803	183,952	258,723	N.A.
Oct.	278,637	212,886	290,157	N.A.
Nov.	255,135	190,380	253,909	196,644
Dec.	239,173	189,363	266,472	.....
Total	2,957,991	2,392,637	2,323,848	.....

* Combined with August figures.

N.A.—Not available.

SHIPMENTS OF TIN-TERNEPLATE

(American Iron and Steel Institute)

Period	(Net Tons)			
	Hot Dipped		Electrolytic	
1958				
Jan.	31,455	30,304	474,359	417,210
Feb.	29,451	24,602	397,861	442,625
Mar.	36,794	46,706	419,102	597,408
Apr.	43,670	54,906	468,568	689,998
May	37,628	64,110	402,521	680,064
June	42,560	62,965	429,761	673,819
July	45,481	36,381	422,776	244,719
Aug.	46,037	N.A.	463,439	N.A.
Sept.	43,217	N.A.	525,739	N.A.
Oct.	60,261	N.A.	763,361	N.A.
Nov.	14,596	21,782	113,134	296,641
Dec.	16,842		150,942	.....
Total	447,296	.....	5,649,199	.....

INTERNATIONAL MINERALS and METALS CORPORATION

11 BROADWAY, NEW YORK 4, N. Y.

COPPER

ZINC

Buyers

ORES

CONCENTRATES

SCRAP

RESIDUES

For: **PHELPS DODGE PLANTS IN**

Laurel Hill, L. I., N. Y.

Douglas, Arizona

El Paso, Texas

For: **NATIONAL ZINC CO.**

(Subsidiary)

Bartlesville, Oklahoma

Sellers

COPPER (Electrolytic)

ZINC (All Grades)

CADMIUM

MERCURY

We'll get out of it what we put in!

Get Your Scrap Metal Out

CONSUMERS OF

NICKEL - COPPER - BEARING MATERIAL

NICKEL PLATERS - RACKS AND BASKETS

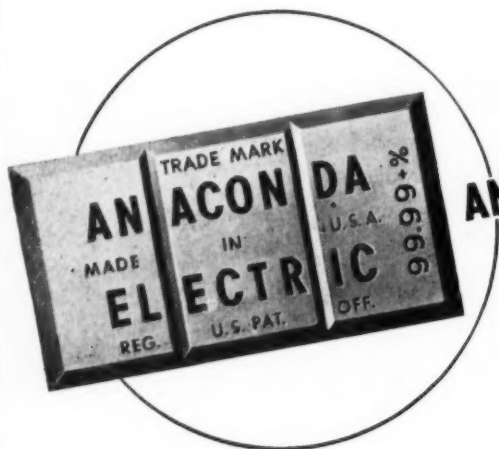
CLEAN AND OFF-GRADES OF MONEL METAL

I. Schumann & Company

4391 Bradley Road

P. O. Box 2219 - SHadyside 1-7800

Cleveland 9, Ohio



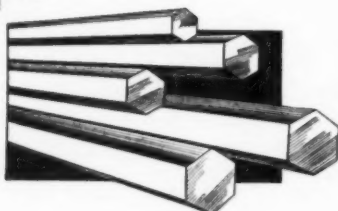
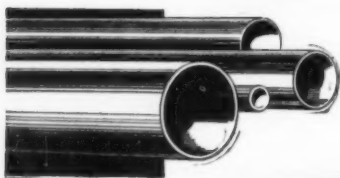
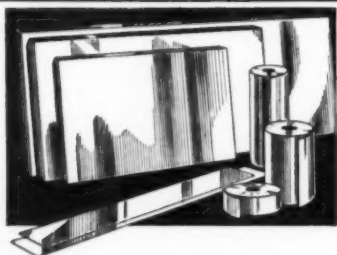
SPECIAL HIGH GRADE zinc

ANACONDA 99.99+% ELECTRIC[®]

A consistent favorite with the trade for zinc-base die casting alloys. Year in and year out many leading die casters use Anaconda Electric Zinc. Always available from

Anaconda Sales Company
25 Broadway, New York 4, N. Y.

84312



ANACONDA[®] COPPER • BRASS • BRONZE

Sheet, Strip, Rod, Wire, Copper Tubes and
Fittings, 85 Red Brass Pipe, Free Cutting Rods,
Die Pressed Forgings and Extrusions

made by

THE AMERICAN BRASS COMPANY • WATERBURY 20, CONN.
Subsidiary of The Anaconda Company

DISTRICT SALES OFFICES:

Ansonia, Conn.
Atlanta 8, Ga.
Buffalo 5, N. Y.
Cambridge 42, Mass.
Cedar Rapids, Iowa
Charlotte 2, N. C.
Chicago 39, Ill.
Cincinnati 2, Ohio
Cleveland 11, Ohio
Columbus 15, Ohio
Dallas 6, Texas
Denver 16, Colo.
Detroit 31, Mich.
Houston 2, Texas
Kansas City 5, Mo.

Kenosha, Wis.
Los Angeles 17, Calif.
Milwaukee 4, Wis.
Minneapolis 2, Minn.
Newark 2, N. J.
New York 16, N. Y.
Philadelphia 22, Pa.
Pittsburgh 19, Pa.
Providence 3, R. I.
Rochester 4, N. Y.
St. Louis 3, Mo.
San Francisco 4, Calif.
Seattle 1, Wash.
Syracuse 2, N. Y.
Torrington, Conn.

Washington 5, D. C.
Waterbury 20, Conn.

General Offices:
Waterbury 20, Conn.

In Canada: Anaconda American
Brass Limited General Offices:
New Toronto, Ontario

Montreal Office:
939 Dominion Square Building

Vancouver Office:
1030 West Georgia St.

*Warehouses

58294

